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ACCOUNTS AND PAPERS:

FORTY-FOUR VOLUMES.

— (3.) —

ARMY (MANUFACTURING ESTABLISHMENTS);
ARMY (MEDICAL DEPARTMENT).

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. 1465.] Report of the Army Medical Department for the Year 1874, 2

. 1629.] Report of the Army Medical Department for the Year 1875, 4

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ARMY MEDICAL DEPARTMENT

REPORT

FOR THE YEAR 1874.

VOLUME XVI.

Presented to both Houses of Parliament by Command of Her Majesty.

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TO THE RIGHT HONOURABLE

THE SECRETARY OF STATE FOR WAR.

Sir,

In accordance with instructions laid down for the conduct of business by the Director-General and Heads of Branches of the Army Medical Department, I have the honour to submit the accompanying Report on the Health of the Army in 1874, and on various matters connected with the duties of the Officers of the Department.

The Statistical, Sanitary, and Medical Reports have been drawn up by the Officers in charge of the respective Branches.

I have the honour to be,
Sir,
Your most obedient
Humble Servant,
W. M. MUIR,
Director-General

Army Medical Department,
February 1876.

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ARMY MEDICAL DEPARTMENT REPORT FOR 1874.

I.—ON THE HEALTH OF THE TROOPS SERVING IN THE UNITED KINGDOM IN 1874.

Section I.

Sickness and Mortality.

STATISTICAL REPORT.

United Kingdom

The average strength of the Troops serving in the United Kingdom during the 52 weeks ending 25th December 1874, calculated from the Weekly Returns of Sick was 86,837; the admissions into hospital in this number were 73,004; the deaths in hospital, and those which occurred out of hospital, were 735; throughout the year the average number of men always in hospital was 3,351. The proportions per 1,000 of the strength represented by these numbers are of admissions, 840·7; and of constantly sick, 38·59. In addition however 84 deaths occurred among men detached from their regiments, the average number of men so detached is given in the Adjutant-General's Returns as 6,361. The average strength of the force serving in the United Kingdom was therefore 93,198, and the total number of deaths 819, being in the rate of 8·79 per 1,000 of the strength.

The rate of admissions is 81·5, and that of deaths is ·53 per 1,000 men in excess of the corresponding rates of the previous year, both are also in excess of those of the average of the five preceding years.

The diseases causing the increase in the rate of admissions and in that of deaths, in the present year, are shewn in a subsequent section, in which an analysis of the distribution of the admissions and deaths in the various groups is made; but certain considerations bearing on the subject of the less favorable health of the force in the present than in the past year may be mentioned here. The matter is complicated by the fact that causes tending in opposite directions, influenced the number of admissions into hospital in 1874; the fall in the rate of admissions for venereal diseases, which followed the promulgation of the Royal Warrant of October, 1873, continued throughout 1874; the increase in the rate of admissions for all diseases together, is therefore in spite of the operation of a cause tending to lower the rate. Until nearly the end of the first quarter of the year, the weekly rates of admissions were

United Kingdom.

sometimes higher, sometimes lower, than those of the corresponding weeks in 1873, but the average for the period of 11 weeks was nearly the same in both cases being 15·54 per 1,000 against 15·60; in the last week but one of the quarter however an increase in the rate began, and with one exception continued uninterruptedly until the end of the year, during this period the rate of admissions averaged about one-eighth higher, than that of the corresponding period in 1873. The suddenness of the rise resembled that due to epidemic disease, but no important epidemic broke out then, or during the year, nor does the steady maintainance of the rise during nine months, show the influence of sickness in this form, it points rather to the operation of some sustained agencies, for it seems probable that more than one contributed to the result. During the present year a radical change in the previous system of hospital management, and medical attendance on sick soldiers was made, by the substitution of station, for regimental hospitals, and it is therefore necessary to estimate what effect this may have had on the amount of sickness. As the rise in the rate of admissions began in the last week in March, and the new system was nowhere established before the month of May, and then only at one station, and as the system was not generally in force until the last quarter of the year, (and in Ireland not until December), it is clear that the change does not account for even a considerable part of the greatly increased number of admisions into hospital, though it is the case that for some time after the establishment of station hospitals, a temporary increase in the number of admissions took place, at certain stations. The higher proportion of sickness, and of mortality amongst the troops serving in the United Kingdom in 1874 than in 1873, must chiefly be ascribed to the unfavourable causes affecting the health of the general population in England in 1874, as shewn in a higher death rate. From the returns of the Registrar-General, it appears that in 1873, the proportion of deaths was 21·2 per 1,000 of the population, whilst in 1874, the proportion was 22·3, an excess in the latter year of 1·1 per 1,000; and it is a fair assumption that an increased amount of sickness accompanied the greater mortality of 1874. Amongst the troops in the United Kingdom, the admissions were proportionally greater in every class, and also in every separate group, of diseases than in 1873, excepting in two, for the unconformity of which in one instance, there is an obvious explanation; and not only were the admissions from sickness more numerous, but those caused by accidents were greatly in excess,—in a smaller strength—they were 1,401 more in number, and the deaths following them were 17 more than in 1873.

The rate of admissions and of deaths in the present year, was no doubt also somewhat raised by the circumstance that many invalids from abroad, instead of being sent to Netley, joined their depôts, and the records of their admissions and deaths were not always kept distinct from those of the other soldiers; in many instances, probably, their illnesses were returned among those of the United Kingdom, the result being that more admissions and deaths were attributed to the force serving at home than were due to illness contracted there, and also that the rates of mortality due to service at stations abroad, were a little understated.

United Kingdom

Orders.	Average Strength in Weekly Returns, 86,837. Average Strength, including men detached, 93,198.	Admitted into Hospital	Died.			Ratio per 1,000 of Mean Strength—			
						1874.		1869–73.	
			With the Regiment.	Absent from the Regiment.	Total.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group ..	5,253	44	4	48	60·5	·52	52·3	·64
2	Constitutional ,, ..	12,617	228	23	251	145·3	2·69	153·9	2·84
	II. *Local Diseases.* Diseases of the—								
1	Nervous System ..	1,124	42	10	52	13·0	·56	11·0	55
2	Eye	1,463	..	..	..	16·9	..	15·6	
3	Ear	409	..	1	1	4·7	·01	3·4	
4	Nose	47	..	..	..	·5	..	·4	
5	Circulatory System ..	1,462	122	10	132	16·8	1·42	12·4	1·52
6	Absorbent ,, ..	1,325	.	..	..	15·3	..	12·7	·01
7	Ductless Glands ..	16	..	..	..	·2	..	·1	
8	Respiratory System ..	7,770	134	15	149	89·5	1·60	80·9	1·27
9	Digestive ,, ..	10,636	53	6	59	122·5	·63	97·0	·57
10	Urinary ,, ..	6,553	28	1	29	75·5	·31	112·5	·27
11	Generative ,, ..	1,147	..	..	..	13·2	..	12·3	
12	Organs of Locomotion	425	1	..	1	4·9	·01	4·9	·05
13	Cellular Tissue ..	2,154	5	..	5	24·6	·05	21·1	·02
14	Cutaneous System ..	8,947	..	..	..	103·0	..	96·5	..
	III. *Conditions, &c.*								
	Debility	1,121	1	..	1	12·9	·01	5·1	·01
	IV. *Poisons* ..	234	7	..	7	2·7	·08	2·5	·10
	V. *Injuries.*								
1	Battle	10	..	..	..	·1	..	..	
2	Accidental	10,074	41	5	46	116·0	·49	96·4	·50
3	Homicidal	2	3	..	3	·3	·03	·3	·03
4	Self-inflicted	23	24	3	27		·29		·28
6	Judicial	..	..	1	1	..	·01		·01
	VI. *Surgical Operations*	32	..	..	..	·4	..	·2	·01
	Not known	..	2	5	7	..	·08	..	
	No appreciable disease	160	..	..	..	1·9	..	1·1	..
	Total	73,004	735	84	819	840·7	8·79	792·6	8·68

General Diseases.—Diseases of this class were more prevalent than in 1873, by 13·7 per 1,000 men, the rate of deaths is fractionally higher. In diseases of the febrile order, there is an increase of 13·9 per 1,000 men on the rate of admissions of the preceding year; it is in the constitutional order that the increase in the rate of deaths in the whole class occurs.

Local Diseases.—In every order of this class, with one exception, that of *diseases of the urinary system*, in which there is a material reduction, an increased prevalence is shewn compared with that of the preceding year; in *diseases of the respiratory system*, it amounts to 7·1, in those of the *digestive system*, to 26·9, and in those of the *cutaneous system*, to 10·9 per 1,000 men. The most important differences between the rates of mortality of diseases of this class and the corresponding rates of 1873, are in those of diseases of the *nervous*, *respiratory*, *circulatory*, and *digestive systems*, the rates of the two former are higher, and that of the two latter are lower, than in the year quoted.

Conditions, &c.—*Debility.*—The rate of admissions is one-third higher than in the preceding year, but the proportion of deaths is the same.

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Poisons.—No material difference existed in the prevalence of diseases caused by intemperance as compared with that of 1873, but the variation in the rate of admissions, ·3 per 1,000 men, is against the present year.

Accidental Injuries, were much more numerous than in 1873, the excess in the proportion being 19·3 per 1,000 men; the proportional mortality due to injuries is also much in excess of that of the previous year, being ·19 per 1000, or more than one-third of the whole.

Self-Inflicted Injuries.—The suicidal deaths are in a slightly higher rate than that of 1873.

In the following Tables the sickness and mortality at the different groups of stations are shewn:—

	Average Strength.	Admitted into Hospital.	Died.	Average constantly Sick.
1. Seaport Towns	14,570	10,764	104	535
2. Dockyards and Arsenals	12,484	11,767	112	529
3. Camps	21,007	18,665	169	828
4. Large Manufacturing Towns ..	5,129	4,693	66	214
5. London and Windsor	5,033	4,316	36	228
6. Dublin	3,946	3,128	34	159
7. Remaining Stations	24,668	19,671	214	858
8. Detached from their Corps ..	6,361	..	84	..
Total ..	93,198	73,004	819	3,351

	Ratio per 1,000 of Strength.					
	1874.			1870–73.		
	Admitted into Hospital.	Died.	Constantly Sick.	Admitted into Hospital.	Died.	Constantly Sick.
1. Seaport Towns	738·8	7·14	36·72	755·8	9·62	37·28
2. Dockyards and Arsenals ..	942·6	8·96	42·37	895·6	8·24	43·18
3. Camps	888·9	8·04	39·42	774·1	7·60	36·48
4. Large Manufacturing Towns	915·0	12·86	41·72	861·7	9·50	43·38
5. London and Windsor	857·5	7·15	45·30	778·9	7·85	46·62
6. Dublin	792·7	8·62	40·29	819·0	10·99	46·48
7. Remaining Stations ..	797·4	8·68	34·78	771·6	7·34	35·21
8. Men detached from their Corps	..	12·75	..	..	12·49	..
Total	840·7	8·79	38·59			

At every group of stations the rate of admissions is higher than the corresponding one in 1873, very triflingly so in the instance of London and Windsor, and not considerably in those of Dublin, Large Manufacturing Towns, and Seaport Towns, but greatly so in Camps, and in Dockyards, the excess amounting in the former to 160·, and in the latter to 116·, per 1,000 of the strength. With regard to the comparative prevalence of disease in the various groups, a change has occurred in the order in which they stand with relation to each other in this respect since the preceding year; in the report for 1873, it was mentioned that in the three groups of Seaports, Camps, and Remaining Stations, were always hitherto found the lowest admission, death, and constantly sick rates, in the present year this association is broken, and instead of the group Camps, being the second in the series in lowness of admission

United Kingdo

rate, it comes fifth, the place heretofore occupied by it being taken by Dublin; the order in which the groups stand in the present year being, Seaports, Dublin, and Remaining Stations. The prevalence of disease at the group Camps as already stated is in excess of that of the preceding year, the death rate of the group is also 1·05, and the constantly sick rate 3·29 per 1,000 men, in excess of the corresponding rates of 1873, and all the three are in excess of the average.

The admissions and deaths from each class and order of diseases, at each group of stations are shewn in the following Table:—

Orders.	Groups of Stations	Seaports.		Dockyards and Arsenals.		Camps.		Manufacturing Towns.		London and Windsor.		Dublin.		Remaining Stations.		Detached Deaths.
	Average Strength	14,570		12,484		21,007		5,129		5,033		3,946		24,668		
	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	
	I. *General Diseases.*															
1	Febrile Group	650	8	1,321	6	1,230	7	259	3	269	4	148	5	1,376	11	4
2	Constitutional ,, ...	1,620	41	1,810	35	3,062	51	893	26	1,326	14	714	7	3,192	54	23
	II. *Local Diseases.*															
	Diseases of the—															
1	Nervous System	180	5	170	7	326	14	50	1	40	1	40	2	318	12	10
2	Eye	215	...	227	...	399	...	121	...	49	...	55	...	397	...	...
3	Ear...	69	...	94	...	76	...	29	...	14	...	27	...	100	...	1
4	Nose...	7	...	10	...	11	...	2	...	...	...	3	...	14	...	...
5	Circulatory System	283	25	279	14	488	25	46	14	24	5	40	5	302	34	10
6	Absorbent ,, ...	155	...	160	...	391	...	111	...	71	...	85	...	352	...	...
7	Ductless Glands...	4	...	4	...	2	...	...	...	5	...	...	...	1	...	...
8	Respiratory System	1,087	10	1,211	25	2,249	22	550	22	326	8	312	10	2,035	37	15
9	Digestive ,, ...	1,621	6	1,853	9	2,594	17	647	4	540	...	361	2	3,020	15	6
10	Urinary ,, ...	1,084	1	907	3	1,542	6	515	1	522	2	330	2	1,653	13	1
11	Generative ,, ...	200	...	168	...	311	...	74	...	38	...	41	...	315	...	...
12	Organs of Locomotion	72	...	49	...	102	1	22	...	15	...	30	...	135	...	...
13	Cellular Tissue	260	1	280	2	535	2	147	...	211	...	114	...	607	...	...
14	Cutaneous System	1,404	...	1,352	...	2,324	...	532	...	396	...	395	...	2,544	...	...
	III. *Conditions, &c.*															
	Debility	167	...	163	...	368	1	36	...	24	...	42	...	321	...	...
	IV. *Poisons*...	35	1	45	..	51	1	21	1	13	...	7	...	56	4	...
	V. *Injuries.*															
1	Battle	6	...	...	...	4	...	...	...	...	...	...	...	...	...	...
2	Accidental	1,604	5	1,586	5	2,561	4	628	4	422	...	382	...	2,891	23	5
3	Homicidal	...	...	...	...	...	...	...	...	...	1	...	...	2	2	...
4	Self-inflicted	4	1	5	5	6	8	...	...	...	1	...	...	8	9	3
6	Judicial	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
	VI. *Surgical Operations*...	5	...	3	...	5	...	...	...	9	...	...	...	10	...	...
	No Appreciable Disease ...	32	...	70	...	25	...	7	...	2	...	2	...	22	...	...
	Not known	...	...	...	1	...	...	...	...	...	...	...	1	...	...	5
	Total	10,764	104	11,767	112	18,665	169	4,693	66	4,316	36	3,128	34	19,671	214	84

Ratio per 1,000 of Mean Strength.

Orders.	Groups and Stations	Seaports.		Dockyards and Arsenals.		Camps.		Manufacturing Towns.		London and Windsor.		Dublin.		Remaining Stations.	
	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*														
1	Febrile Group	44·6	·55	105·8	·48	58·6	·33	50·5	·59	53·4	·79	37·5	1·27	55·8	·44
2	Constitutional ,,	111·2	2·81	145·0	2·80	145·3	2·43	174·1	5·07	263·5	2·78	180·9	1·77	129·4	2·19
	II. *Local Diseases.*														
	Disease of the—														
1	Nervous System	12·4	·34	13·6	·56	15·5	·67	9·8	·19	7·9	·20	10·1	·51	12·9	·49
2	Eye	14·8	...	18·2	...	19·0	...	23·6	...	9·7	...	13·9	...	16·1	...
3	Ear	4·7	...	7·5	...	3·6	...	5·7	...	2·8	...	6·9	...	4·0	...
4	Nose	·5	...	·8	...	·5	...	·4	...	...	...	·8	...	·6	...
5	Circulatory System	19·4	1·72	22·4	1·12	23·3	1·66	9·0	·78	4·8	·99	10·1	1·27	12·2	1·38
6	Absorbent ,,	10·6	...	12·8	...	18·6	...	21·6	...	14·1	...	21·6	...	14·3	...
7	Ductless Glands	·3	...	·3	...	·1	...	...	...	1·0	...	...	...		...
8	Respiratory System	74·6	·69	97·0	2·00	107·1	1·05	107·2	4·29	64·7	1·59	79·1	2·53	82·5	1·50
9	Digestive ,,	111·3	·41	148 4	·72	123·5	·81	126·1	·78	107·3	...	91·5	·51	122·4	·61
10	Urinary ,,	74·4	·07	72·7	·24	73·4	·28	100·4	·19	103·7	·40	83·6	·51	67·0	·53
11	Generative ,,	13·7	...	13·5	...	14·8	...	14·4	...	7·6	...	10·4	...	12·8	...
12	Organs of Locomotion	4·9	...	3·9	...	4·9	·05	4·3	...	3·0	...	7·6	...	5·5	...
13	Cellular Tissue	17·8	·07	22·4	·16	25·5	·09	28·7	...	41·9	...	28·9	...	24·6	...
14	Cutaneous System	96·4	...	108·3	...	110·7	...	103·7	...	78·7	...	100·0	...	103·1	...
	III. *Conditions, &c.*														
	Debility	11·5	...	13·1	...	17·5	·05	7·0	...	4·8	...	10·7	...	13·0	...
	IV. *Poisons*	2·4	·07	3·6	...	2·6	·05	4·7	·19	2·6	...	1·8	...	2·3	·16
	V. *Injuries.*														
1	Battle	·4	...	...	...	·2	...	...	...	...	...	...	...	...	...
2	Accidental	110·1	·34	127·1	·40	121·9	·19	122·4	·78	83·8	...	96·8	...	117·2	·93
3	Homicidal	...	...	...	...	...	...	...	...	...	·20	...	...	·1	·08
4	Self-inflicted	·3	·07	·4	·40	·3	·38	...	...	...	·20	...	...	·3	·37
	VI. *Surgical Operations*	·3	...	·2	...	·3	...	...	...	1·8	...	...	...	·4	...
	No Appreciable Disease	2·2	...	5·6	...	1·2	...	1·4	...	·4	...	·5	...	·9	...
	Not known	...	...	...	·08	...	...	...	...	...	...	...	·25	...	...
	Total	738·8	7·14	942·6	8·96	888·9	8·04	915·0	12·86	857·5	7·15	792·7	8·62	797·4	8·68
	Average Daily Sick	36·72	...	42·37	...	39·42	...	41·72	...	45·30	...	40·29	...	34·78	...

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General Diseases.—In every group of stations the proportion of admissions for diseases of the febrile order exceeds that of the previous year; the excess is least in London and Windsor, amounting only to 1·6 per 1,000 men; in the other groups it varies from 6·2 in Seaports, to 27·9 in Dockyards; the excess in Camps being 21·2 per 1,000 men. Compared with the previous year, the death rate for diseases of this order, is greater in Camps by ·04, in Dublin by ·39, and in London and Windsor by ·07 per 1,000 men, in all other groups the rate is lower, the decrease being largest in groups Manufacturing Towns, and in Remaining Stations. For diseases of the constitutional order, the rate of admissions is lower than in the preceding year in the groups Seaports, London and Windsor, and Remaining Stations, but higher in all the others, the greatest increase being in that of Dublin 37·4, in Camps it is 12·3, and in Dockyards 11·3 per 1,000 men. The rate of deaths from diseases of this order is higher than in 1873 in Manufacturing Towns, London, and Remaining Stations; in the first-named group the increase amounts to 1·24 per 1,000 men; in all others the rate is lower.

The rates of admissions and of deaths from the orders of diseases of this class, in each group of stations are shewn in the following Table:—

General Diseases.		Annual Ratio per 1,000 of Mean Strength.						
		Seaport Towns.	Dockyards and Arsenals.	Camps.	Manufacturing Towns.	London and Windsor.	Dublin.	Remaining Stations.
Febrile.								
Eruptive Fevers	Admitted	2·8	11·9	6·0	6·2	5·1	3·3	3·7
	Died	·14	...	...	...	...	·25	·08
Continued "	Admitted	13·7	39·8	25·4	21·2	30·0	23·8	22·5
	Died	·20	·16	·19	·39	·20	·76	·16
Paroxysmal "	Admitted	22·6	33·7	11·9	12·1	·8	5·1	20·2
	Died	·07	·08	...	...	...	...	...
Influenza... ...	Admitted	2·2	10·7	8·8	5·3	11·9	3·0	5·4
	Died	...	...	...	...	...	...	...
Erysipelas ...	Admitted	3·2	7·5	5·7	4·9	4·8	1·0	2·7
	Died	·14	·16	·10	·19	·39	·25	·16
Other Febrile Affections ...	Admitted	·1	2·2	·8	·8	·8	1·3	1·3
	Died	...	·08	·04	...	·20	...	·04
Total of Febrile Group ...	Admitted	44·6	105·8	58·6	50·5	53·4	37·5	55·8
	Died	·55	·48	·33	·58	·79	1·26	·44
Constitutional.								
Rheumatism ...	Admitted	36·3	60·9	62·0	58·5	50·5	38·2	52·0
	Died	·07	·08	...	...	·20	...	·04
Syphilis	Admitted	60·1	63·8	68·2	97·1	197·5	130·0	65·2
	Died	·14	...	·10	...	·39	·25	·08
Scrofula, Phthisis, &c.	Admitted	12·2	14·8	12·6	13·5	11·1	10·7	9·1
	Died	2·47	2·56	2·23	5·07	2·19	1·52	1·95
Scurvy and Purpura	Admitted	·3	1·1	·5	...	...	...	·3
	Died	...	·08	...	...	...	...	...
Anæmia	Admitted	1·0	3·5	1·3	3.1	2·4	1·5	1·2
	Died	...	...	...	...	...	...	...
Other Constitutional Affections	Admitted	1·3	·9	1·2	1·9	2·0	·5	1·6
	Died	·14	·08	·10	...	...	...	·12
Total of Constitutional Group ...	Admitted	111·2	145·0	145·8	174·1	263·5	180·9	129·4
	Died	2·82	2·80	2·43	5·07	2·78	1·77	2·19

Eruptive Fevers, were more prevalent than in the preceding year, the excess being in the proportion of 3·24 per 1,000 men, which is considerably more than the whole proportion for 1873; the number of admissions from fevers of this nature, however in the present year was only 478, and of them 157 were admissions after re-vaccination; the sickness due to eruptive fevers was thus small, and the extent to which they contributed to produce the excess of sickness in the present year, is hardly appreciable. The admissions from small-pox were 7, and from chicken-pox 15; of the former

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2 were at the Curragh Camp, 3 at Preston, and there were single admissions at Chatham, and at Limerick; with regard to the distribution of the admissions from chicken-pox, it may be noticed that none of them took place at any station where there were admissions for small-pox ; one-third of the whole number occurred at Colchester Camp. The admissions on account of measles, are in a three-fold greater rate than in 1873, they are returned from twenty-five different stations, but, as might be expected, the greatest prevalence was usually at the largest stations, such as at Aldershot, Portsmouth, Woolwich, Chatham, and London ; in Aldershot Camp, the admissions were 69, of which number 17 were in the 2nd Battalion, 24th Foot, and 17th in the 93rd Foot, in no other corps did the admissions exceed 6; the disease was most common in the first quarter of the year. Two of the attacks of measles were fatal.

The admissions for scarlet fever, were 101, a two-fold greater proportion than in the preceding year ; twenty-seven different stations contributed to the total number of admissions, 35 of which took place in Woolwich, 13 in London, 12 in Aldershot, and 8 in Dublin. Three of the attacks of scarlet fever proved fatal.

Continued Fevers.—The rate of admissions for fevers of this nature, in all groups together, 24·6, exceeds that of the preceding year by 3·7 per 1,000 men, but the rate of deaths is ·17 per 1,000 men lower than in 1873 ; with the exception of a decrease in Seaports of 4·6, and in Manufacturing Towns of 3·4, the rates in the groups, exceed the corresponding ones of the preceding year ; the largest excess being in those of Dockyards 17·5, in Camps 7·4, and in Dublin 6·4 ; the excess in London, and in Remaining Stations, is fractional. With the exception of the group London and Windsor, in which the rate of deaths is ·02 per 1,000 higher than in 1873, and in Camps, in which the rates in both years are identical, the rate of deaths for continued fevers, is lower in every group than in the preceding year.

Typhus Fever.—Four admissions from this fever took place, one at Glasgow, one at Londonderry, and two at Dublin ; no case proved fatal.

Cerebro Spinal Fever.—One admission from this disease took place at Exeter, in the group of Remaining Stations, the subject of it being a man of the K Battery, 16th Brigade, Royal Artillery ; the illness was fatal.

Enteric Fever.—The prevalence of this form of fever was less than in the preceding year ; as was then the case, no group of stations has been free from the presence of this disease, as may be seen in the subjoined Table :—

	Seaports.	Dockyards and Arsenals.	Camps.	Large Manufacturing Towns.	London and Windsor.	Dublin.	Remaining Stations.	Detached from Regiments.
Admissions for Enteric Fever	7	2	7	5	4	29	38	..
Deaths from Enteric Fever	2	1	3	2	1	2	3	4

For statistical purposes Newbridge, has hitherto been included with the Curragh, and the statistics relating to it have consequently appeared in the group Camps ; but for the present purpose, the aim of which is to trace the incidence of one particular kind of fever, and its comparative prevalence in connexion with conditions, which are present in some, and absent or less powerful in other groups of stations, Newbridge (a small town, having permanent and long occupied barracks) has been taken from the group Camps, and added to that of Remaining Stations ; were it retained in the first-named group, the effect would be misleading in an important respect, as enteric fever would then appear to have been more prevalent in Camps than in any other group, excepting one, whilst in reality this form of fever was rarely seen in the group, and never acquired a foot-hold in it. The relative prevalence of enteric fever was greatest in the group Dublin, in which the proportion is 7·34 per 1,000 of the strength; next in Remaining Stations, 1·54; in Manufacturing Towns, ·96; in London, ·79; in Seaports, ·48; in Camps, ·33; and in Dockyards, ·16; but this distribution shews only where the illnesses were treated, not their places of origin, which is really the important point; no doubt in the great majority of instances the disease originated at the place where it was treated, but in some this was not so; *e. g.*, one of the five cases returned from Aldershot, was an importation from Winchester, one returned from Dover, was received from Shoeburyness, and it is doubtful whether the two admissions returned from the Curragh, should not rather be added to those of Newbridge.

Admissions due to enteric fever, are returned from 26 different stations, eight of which returned only one each, and eleven only two each: the presence of the disease at so many places, and its non-extension in them affords the best proof of the generally good sanitary state of the quarters of the troops in the United Kingdom: outbreaks occurred in three stations during the year, Newbridge, Dublin, and Limerick, in each of them there was evidence of the strictly local character of the epidemic, rendering the term "house epidemic" very applicable; the outbreak of the fever revealed in each instance the existence of unsuspected unwholesome conditions, with the removal of which it disappeared, in two of the localities, in the other instance however the evidence is not conclusive, as though no more attacks occurred after the remedy of the insanitary defects, the barracks having been vacated, the subsidence of the fever may have been due, not to the removal of its apparent cause, but to the absence of material for its manifestation. The first in point of time of the three outbreaks of enteric fever, was that which occurred in the 6th Dragoons, at Newbridge, in the first quarter of the year; it caused 18 admissions amongst the non-commissioned officers and men, one case being fatal, but many attacks occurred among the families. At the commencement of the outbreak the barracks at Newbridge, were occupied by the 6th Dragoons quartered in rooms on the east, and south, and by two Batteries of Royal Artillery, in rooms on the west and north of the barracks; all the attacks occurred in that portion of the barracks occupied by the 6th Dragoons. Though not suspected at the time of their occurrence, perhaps, the first cases in the outbreak were those of the wife and child of a non-commissioned officer who were taken ill early in January; the family had access to a well, the water of which was contaminated with sewage, but it is not certain that they made use of it for drinking purposes; in the same house, in the course of the next two months, about 20 persons were taken ill with "fever." On the 23rd of January, the child of an officer living not far from the first house was taken ill with enteric fever, and subsequently seven other persons of the family were attacked. An officer who lived out of barracks, but who slept one night in the house next to that just spoken of, also suffered an attack of enteric fever at this time. The 18 cases which occurred amongst the men of the regiment, were received from different barrack rooms. On the 14th of March, the regiment vacated the barracks, and the last admissions of soldiers for enteric fever were on the 24th of that month. The source of the water used generally in the barracks is not stated, but as the Artillery, who used the same water as the 6th Dragoons, remained healthy, the presumption is that the fever was not due to its unwholesomeness, and the indications all along were that the sewerage was in fault; on examination structural defects were discovered in the sewer with which the house most affected was connected; this sewer had no special means of ventilation into the open air. The defective portion of the sewerage system having been replaced, the buildings were re occupied by another regiment; two men belonging to which were attacked with illness returned as simple continued fever, one of them recovered after being in hospital 58 days, the other died, and in his case the post mortem appearances were similar to those of enteric fever.

The second outbreak of enteric fever, occurred in the military prison in Dublin in the beginning of the month of August, the last case in the series being that of a man taken into hospital from barracks on the 11th of November, ten days after his discharge from prison. In all 14 admissions are

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returned, there were also 2 admissions for diarrhœa at the same time. In his report, which was published in the Departmental Blue Book for 1873, the Medical Officer shews, that the drains of the prison were imperfectly trapped.

The third outbreak occurred in the Military Prison in Limerick, in December, but the first admission of the series was in the previous month. The Medical Officer attributes the outbreak to the use of unwholesome water, which when analyzed in 1873 was found to contain 5·3 grains of organic matter and 2·4 grains of chlorides in each gallon; the pipe conveying it was corroded into holes where it passed beneath the washhouse surface drain, on the use of this water being discontinued there were no more admissions from enteric fever.

Simple Continued Fever.—Taking all groups together this form of fever was less prevalent than in the preceding year, the decrease occurred chiefly in the groups Manufacturing Towns, and Remaining Stations, an increase is shewn in Dockyards, and in Camps; six deaths are returned as due to simple continued fever, two of them in the group, Manfacturing Towns.

Febricula.—Taking all groups together the admissions exceeded those of the preceding year, in the proportion of 4·1 per 1,000 men; a decrease in the rate occurs in the groups Seaports, and London; and an increase, largest in Dockyards, and in Camps, in the others.

PAROXYSMAL FEVERS.—Taking all groups together the rate of admissions of fevers in this order, exceeds that of the preceding year by 4·2 per 1,000 men; with the exception of the group London and Windsor, which returns only four admissions, and Dockyards, in which the rate is fractionally less, the increase extends to every group, the greatest being in that of Remaining Stations. The distribution of admissions for paroxysmal fevers, in the different groups being determined chiefly by the presence of particular corps, the explanation of the increased prevalence of these kinds of fevers in the present year, and their relative prevalence in the various groups, will be found in the fact of the recent return of regiments from abroad to the United Kingdom, and their residence in certain stations. To this statement a qualification is necessary; though attacks from paroxysmal fevers occurring in the United Kingdom are usually due to ague acquired in malarious countries abroad, the disease originates in one station at home, Sheerness, in a noteworthy number of instances. The return of the Gold Coast Expeditionary Force, accounts for nearly one-sixth of the whole admissions for paroxysmal fevers, and its influence is seen in the disproportionate prevalence in Remaining Stations, in which group, at Winchester, the 2nd Battalion of the Rifle Brigade was quartered; the proportion was also raised in Seaports, and in Camps, by the residence at stations in those groups, of men recently returned from the same service; but in the first-named group the residence of the 58th Foot, on its return from India, exercised a still greater influence than that of the 42nd Foot, on its return from the Gold Coast. The increase in the group of Remaining Stations, was chiefly due to the presence of the 37th Foot, which returned from India in the begining of the year.

Influenza.—All the groups shew an increased rate of prevalence of this disease; in Dublin, London and Windsor, and Seaports, the increase is small; in Dockyards, and in Remaining Stations, it is more considerable, in Dockyards, all the admissions, excepting 18, took place in the Chatham Station.

Erysipelas.—The rate of prevalence of this disease, for all groups together, is twice as great as in 1873, in which year also the rate was higher than that of the year preceding it; the mortality due to this disease is in a rate two-thirds higher than in 1873. It will be observed that the greater prevalence of erysipelas coincides with the increased prevalence of measles during the year; in four of the stations noted in a preceding section as those in which measles were most prevalent amongst the troops, erysipelas was also of frequent occurrence. The admissions for erysipelas, are in a higher rate than in 1873, in every group, excepting Dublin; the increase is greatest in Manufacturing Towns, in Camps, and in Dockyards, the most important, though not the greatest, increase being shewn in the group, Camps; the disease was exceptionally prevalent in two stations comprised in the group,

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Aldershot, in which the admissions for erysipelas were 93 in number, and Shorncliffe, in which they were 18; neither in Colchester, nor in Curragh, were they relatively numerous; in Shorncliffe, 3 cases in succession were received from the same hut within a short time of each other. The greatest prevalence of erysipelas was in the 2nd quarter of the year, but it had no marked relation to season, thus the admissions were 75 in the first quarter, 117 in the second, 82 in the third, and 104 in the fourth quarter. At Aldershot, cases occurred throughout the year, and it was only in the second quarter that they were in considerable excess; in Shorncliffe, the greatest prevalence was in the last quarter, in Woolwich the admissions for the disease were progressively more numerous from the first to the last quarter of the year. At many stations no admissions took place, but the stations were comparatively few at which only one admission, or admissions only in one quarter of the year, took place; the persistence of erysipelas at certain stations, is a feature in the returns of the present year.

Rheumatism.—In every group the proportion of admissions for this disease exceeds that of the preceding year, the greatest increase being in the groups Dockyards, Camps, and Manufacturing Towns, amounting to 17· to 15· and to 14· per 1,000 of the strength respectively; no reason can be assigned for this nearly uniform increase.

Syphilis.—In every group there is a decrease on the rate of admissions of the preceding year, amounting in Camps to 5·1, in Seaports to 5·7, in Dockyards to 7·3, in Manufacturing Towns to 10·2, in London and Windsor to 10·8, in Remaining Stations to 11·1, and in Dublin to 41·2 per 1,000 men; the presumed cause of the reduction in the present year, has already been adverted to. Relatively to each other in the matter of the rate of admissions, the different groups hold the same position as in the preceding year, with the exception that the rate of the group Camps, in the present year is a little higher than that of Remaining Stations; the highest rate, that of London and Windsor, is more than three-fold higher than that of Seaports, which is the lowest.

In continuation of the statistical information given in the report of the preceding year, the rates of admissions for primary venereal sores, at certain large stations in the United Kingdom, and their rates per 1,000 of the mean strength, are shewn in the following Tables:—

1874. Admissions for Primary Venereal Sores and Gonorrhœa at 28 Stations of Troops in United Kingdom.

Stations.	Strength.	Admitted for Primary Venereal Sores.	Admitted for Gonorrhœa.	Ratio per 1,000 for Primary Venereal Sores.	Ratio per 1,000 for Gonorrhœa.	Primary Syphilis only	
						Average Number constantly Sick.	Ratio per 1,000 of Strength constantly Sick.
Devonport and Plymouth	2,936	108	185	36	63	8·75	2·98
Portsmouth	6,003	287	398	48	66	22·79	3·80
Chatham and Sheerness ..	4,257	140	259	33	61	9·73	2·29
Woolwich	6,206	293	419	47	68	20 69	3·33
Aldershot	12,922	666	900	52	70	47·33	3·66
Windsor	1,037	65	42	63	41	4·40	4·24
Shorncliffe	2,438	35	109	14	45	2·37	·97
Colchester	1,685	34	106	20	63	2·34	1·39
Winchester	994	38	63	38	63	3·54	3·56
Dover	2,381	87	164	37	69	7·11	2·99
Canterbury	987	36	63	36	64	2·59	2·62
Maidstone	212	14	11	66	52	1·05	4·95
Cork	2,116	54	85	26	40	3·84	1·81
Curragh	3,962	182	164	46	41	12·15	3·07
Total of Stations under the Act	48,136	2,039	2,968	42	62	149·86	3·11

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Stations.	Strength.	Admitted for Primary Venereal Sores.	Admitted for Gonorrhœa.	Ratio per 1,000 for Primary Venereal Sores.	Ratio per 1,000 for Gonorrhœa.	Primary Syphilis only: Average Number constantly Sick.	Primary Syphilis only: Ratio per 1,000 of Strength constantly Sick.
Isle of Wight	1,206	107	142	89	118	6·58	5·46
London	3,996	716	412	179	103	56·23	14·07
Warley	941	30	73	32	78	2·54	2·70
Hounslow	663	45	34	68	51	3·77	5·69
Pembroke Dock	1,359	29	69	21	51	1·84	1·35
Sheffield	801	39	73	49	91	3·27	4·08
Manchester	1,058	112	96	106	91	9·40	8·88
Preston	672	65	85	97	126	5·36	7·98
Edinburgh	1,253	31	56	25	45	1·98	1·58
Fermoy	768	8	14	10	18	·67	·87
Limerick	829	48	22	58	27	4·58	5·52
Athlone	592	5	14	8	24	·40	·68
Dublin	3,946	375	289	95	73	29·54	7·49
Belfast	795	51	71	64	89	3·87	4·87
Total of Stations *not* under the Act	18,879	1,661	1,450	88	77	130·04	6·89

Stations.	Rate of Admissions into Hospital per 1,000 of Mean Strength for Primary Venereal Sores in— 1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.
Devonport and Plymouth	76	66	74	58	50	59	37	36
Portsmouth	116	86	62	51	41	40	44	48
Chatham and Sheerness	71	63	41	47	65	49	41	33
Woolwich	88	46	52	43	58	60	60	47
Aldershot	81	77	63	67	65	62	72	52
Windsor	58	136	93	67	78	96	84	63
Shorncliffe	42	77	60	100	30	33	21	14
Colchester	145	182	85	42	32	55	42	20
Winchester	52	104	101	61	29	57	27	38
Dover	132	111	80	30	24	47	38	37
Canterbury	119	114	45	152	38	43	20	36
Maidstone	242	122	128	68	44	57	59	66
Cork	72	61	73	68	55	62	61	26
Curragh	104	85	88	56	35	50	30	46
Isle of Wight	59	103	129	64	66	57	37	89
London	163	148	144	160	190	199	185	179
Warley	74	92	61	55	57	66	22	32
Hounslow	62	106	85	88	45	90	67	68
Pembroke Dock ..	28	35	51	54	28	27	25	21
Sheffield	163	107	146	77	126	98	71	49
Manchester	177	115	160	92	70	98	91	106
Preston	87	87	172	134	75	114	123	97
Edinburgh	63	46	60	99	69	43	44	25
Fermoy	70	47	116	89	33	56	21	10
Limerick	117	114	54	136	57	100	78	58
Athlone	85	38	42	44	47	14	14	8
Dublin	129	139	180	128	117	165	136	95
Belfast	89	56	52	43	61	78	103	64

For the first group of 14 stations, which contains all those under the Contagious Disease Acts, the average rate of admissions for primary venereal sores; is 42·3 per 1,000 of the strength, a reduction of 8 per 1,000 on the corresponding rate of the preceding year; for the second group of 14 stations, the average rate of admissions is 88·7 per 1,000 men, shewing a reduction of 13·3 per 1,000. The rate per 1,000 of the strength, constantly in hospital for primary venereal sores, is 3·11 in the first, and 6·89 in the second group.

If the stations in the United Kingdom are divided into two groups, the first containing only the 14 in which the Acts referred to are in force, and the second *containing all other stations*, the rate of admissions for primary venereal sores in the subjected group, is 42·3, and in the unsubjected 66·1 per 1,000 men.

Scrofula and Phthisis.—Taking all groups together the rate of prevalence of diseases of this nature is fractionally less than in the preceding year. but the rate of deaths is ·15 per 1,000 men higher; in Seaports, and in Dockyards, the rate of prevalence is fractionally higher than in 1873, the chief increase is in the group Camps, each of the remaining groups shews a decrease; the distribution of the increased proportion of deaths shews no correspondence with that of admissions, being found in connexion with decreased prevalence in Manufacturing Towns, and in Remaining Stations; the mortality in the different groups is affected by one circumstance which requires mention; the invaliding for phthisis, sometimes takes place at the Head Quarters of the Military District, and the death of an invalid from this disease, say at Manchester, would increase the rate for Manufacturing Towns, though perhaps the invalid might have been received from a station in the District classed in some other group.

LOCAL DISEASES.—*Diseases of the Nervous System.*—Compared with the preceding year these diseases were prevalent in a higher proportion in Seaports, Camps, Dublin, and Remaining Stations. The increase in the group Camps, was to the extent of one-third; the proportion of deaths is lower in Seaports, Manufacturing Towns, and in Dublin, but higher in the other groups than in 1873; in no instance is the excess considerable. The only disease of this order which shews a sensible increase in the present year is epilepsy; the rate of admissions for it, of all groups together is 4·25 per 1,000, being ·56 greater than in the preceding year. The proportional prevalence of epilepsy was nearly uniform in the different groups. Mental diseases, are also in a rather higher proportion.

Diseases of the Eye.—The admissions on account of diseases of the eye, are in a lower rate than in the preceding year in Seaports, Dublin, and Remaining Stations, in the other groups the rate is higher, the greatest increase being in Manufacturing Towns.

Diseases of the Circulatory System.—The rate of admissions for diseases of this order, exceeds that of the preceding year in every group excepting London and Windsor, and Dublin; the increase is greatest in the groups Dockyards, and in Camps, amounting in each of them to more than one-third of the whole; but with increased prevalence of diseases of the circulatory system, the rate of mortality due to them is lower in every group, except in that of Remaining Stations, in which it is fractionally higher. This anomaly is explained by the fact, that the increase, in diseases of this nature has been nearly confined to one disease—palpitation, an affection which does not add to the mortality in the order. Taking all groups together, the rate of admissions for palpitation in 1873 was 5·5, and in the present year 7·8 per 1,000 men. The prevalence of this disease, however, is determined more by the presence of particular corps in the groups, than by any other known condition affecting them, as is evident from the transfer of greatest prevalence from one group to another, in different years; in the present year the difference between the highest rate of admissions for palpitation, and the lowest is 10·87 per 1,000 men, the poportion is ·79 in the group London and Windsor, (in which there were only 4 admissions during the year), and 11·66 in that of Seaports; in Dockyards the rate is 10·24, in Camps 10·14: on the other hand the rate in Dublin is 5·, and in Manufacturing Towns only 4·09 per 1,000 men.

Diseases of the Respiratory System.—The rate of admissions for diseases of

United Kingdom.

this order is higher in every group than in the preceding year excepting in Seaports, and in London and Windsor; the rate of deaths is also higher in every group excepting those named, and in Camps. The greatest increase of prevalence is in the group Camps, the rate of which exceeds that of 1873 by 20·3 per 1,000 men, and exceeds the rate of the lowest group in the present year—London and Windsor—by 42·4. Pneumonia, caused four-fifths of the deaths in this order, the greatest proportional mortality from it being in Dublin, and in Woolwich.

Diseases of the Digestive System.—Compared with the preceding year there is an increase in the proportion of admissions for diseases of this order, in every group excepting in London and Windsor; the excess varies from 39·2 in Camps to 14·7 per 1,000 men in Dublin, the decrease in London and Windsor, amounts to 7·5 per 1,000 men. Concurrently with a greater rate of prevalence, that of deaths, as compared with the preceding year, is higher in the groups Seaports, Camps, and Dublin, but in the other groups it is lower. In London, there were no deaths from diseases of the digestive system in either year. Taking all groups together, there was an increased prevalence of those diseases in the order, which are numerically important, though the distribution of the increase is not uniform in the groups; in this respect the fluctuations are greatest in the disease, dyspepsia. The rate of prevalence of tonsillitis is increased in every group, and to the greater prevalence of this disease, more than to that of any other, the increase in the whole order is owing; in Camps, the proportion of admissions for tonsillitis is double that of the preceding year. The rate of admissions for diarrhœa, is higher for all groups together, and for every separate group, excepting Manufacturing Towns, and London and Windsor, in which, particularly in the last, there is a notable reduction. Diseases, in the production of which the influence of former tropical service is probably evidenced, have also been more prevalent than in 1873; both dysentery, and hepatitis, caused more admissions into hospital, but they affected the proportions in certain groups only, in Camps, the rate of the former disease was nearly four-fold greater, and that of the latter was also much greater, than in 1873. The effect of the influence referred to is well marked in the contrast between the results in two of the groups, Camps, and London and Windsor; in the present year the rate of admissions due to hepatitis, and to dysentery, taken together, is 43· in the first, and 1·5 in the last, but the proportions of deaths for the diseases named shew still more strikingly how the previous tropical service of the soldiers stationed in Camps, affects the statistics of that group; the rate of deaths from hepatitis, and dysentery, in it, is ·52 per 1,000 of the strength, whilst as before stated, no soldier died of any disease in the order in the London and Windsor group.

In the report for 1873, mention was made of the fact that the rate of prevalence of diseases of the digestive system in Dockyards, was hitherto always higher than that of any other group; in the present year it exceeds that of the next highest by 22·3, and that of the lowest by 56·9 per 1,000 men.

Diseases of the Urinary System.—With the exception of London and Windsor, in which there is an increase of 7· per 1,000 men, the rate of admissions for diseases of this order, is lower in every group than in the preceding year; the decrease varies from 50· in Dublin to 14· per 1,000 in Camps. The admissions from diseases in the order, other than gonorrhœa, are of no numerical importance; the reduced rate means substantially that gonorrhœa was less prevalent than in 1873; it is probable that part of the difference in the two years may represent unreported attacks of that disease.

In the following Tables the comparative prevalence of gonorrhœa and its sequelæ, during the year at specified classes of stations in the United Kingdom, as deduced from the admissions into hospital on account of it, are shewn:—

United Kingdom.

Average Strength.	Admissions for Gonorrhœa and its Sequelæ.	Ratio per 1,000.
At 14 stations placed under the "Contagious Diseases Acts."		
48,136	3,353	69·7
At 14 large stations not under the "Contagious Diseases Acts."		
18,879	1,593	84·4
At all stations together, not under the "Contagious Diseases Acts."		
38,701	3,057	79·0

From the results in the present year, taken in connection with those in the two previous years, it would appear that soldiers stationed where the Contagious Diseases Acts are in force, are now more favourably placed for the avoidance of gonorrhœa, than those stationed in other districts. this was not shewn by statistical evidence in the first years after the Acts in question came into operation.

Diseases of the Cutaneous System.—In every group, excepting that of Manufacturing Towns, the rate of admissions for diseases of this order is higher than in 1873; in the group London and Windsor, the increase is trifling, in Camps, and Dockyards it amounts to 14·6 and 11·5 per 1,000 men, respectively.

Debility.—The proportion of admissions for this condition, excepting at Manufacturing Towns, is higher at every group than in the preceding year, but in London and Windsor, only fractionally so, the most considerable increase is in Camps 8·4 per 1,000, in Dublin, the proportion in the present is nearly twice that of the preceding year.

Poisons.—The proportion of admissions is higher than in 1873 in every group excepting Seaports, and Remaining Stations, but the influence of locality in producing the diseases in this class, is probably small in comparison with that due to the previously acquired habits of the men in respect of drink.

Accidental Injuries.—The proportion of admissions is higher in every group than in the preceding year; excepting in Manufacturing Towns, in which it is only 1·4 per 1,000 men, the increase is a considerable one, varying from 27·3 in Dublin, to 15·2 in London; the deaths from accidental injuries are in a higher proportion than in 1873 in every group excepting Camps, London and Windsor, and Dublin. The high rate of deaths in the group Remaining Stations, is due to the occurrence in it of 18 deaths from drowning.

The following Table shews the admissions, and deaths, and the number invalided, in each arm of the service in 1873 with the rates per 1,000 of the strength, and the corresponding rates for the ten years 1864 to 1873, *those corps only being taken which served in the United Kingdom, during the whole of the year:—*

United Kingdom.

	Average Strength.	Admitted into Hospital.	Died in and out of Hospital.	Discharged as Invalids.	Annual Ratio per 1,000 of Strength.			1864-73. Annual Ratio per 1,000.		
					Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.
Household Cavalry	1,203	763	11	11	634·2	9·13	9·13	631·0	7·60	16·02
Dragoon Guards and Dragoons	10,285	8,141	82	356	820·7	7·97	34·61	771·8	7·29	27·94
Royal Artillery ..	12,910	10,435	120	336	808·3	9·29	26·02	896·8	8·72	30·18
Royal Engineers..	3,615	..	20	73	..	5·53	20·19	..	6·45	13·76
Foot Guards ..	5,501	4.122	41	107	749·3	7·45	19·44	739·4	7·64	24·74
Infantry Regts. ..	35,326	25,912	284	964	733·5	8·04	27·29	727·0	7·89	25·98
Army Hosp. Corps	920	..	6	15	..	6·52	16·30	..	15·63	15·84
Army Service ,,	2,720	..	31	46	..	11·35	16·85	..	7·29	13·41
Depôt Brig., R.A..	2,380	3,050	26	154	1281·5	10·92	64·70	1024·7	9·33	29·62
Coast Brig., R.A. .	1,433	..	25	12	..	17·45	8·38	..	18·72	8·18
Depôts&Brig.Dep.	10,328	9,578	114	722	927·4	11·05	69·91	905·9	10·98	37·60

Compared with the preceding year, the admission rate is lower in the Royal Artillery, to the extent of 92·8 per 1.000 men ; in Household Cavalry the rates are nearly the same in both years, in all other arms they are higher ; the excess in the case of the Foot Guards is only 11·1, in Dragoons it amounts to 71·, in Infantry to 96·2, and in the Depôt Brigade Royal Artillery to 254· per 1,000 men. Corresponding with the increased rate of admissions the rate of deaths is higher than in 1873 in Dragoons, and it is higher in Royal Artillery and Depôts, both of which arms shew lower admission rates ; in all the other arms, excepting the Army Service Corps, the rate of deaths is lower, but this favourable result is modified by the fact that the rate of invaliding is higher in all arms except in Household Cavalry, Foot Guards, and Army Hospital Corps, the combined strength of which is comparatively small.

In the following Table, to the strength of each arm, one half of the men belonging to it who were placed on the pension list during the year has been added ; and to the mortality in the arm, the deaths occurring before the 31st of December, amongst the men pensioned from it :—

	1874.			1864-73.
	Average Strength corrected as above.	Deaths of Soldiers and Pensioners.	Ratio of Deaths per 1,000 of Strength.	Ratio of Deaths of Soldiers and Pensioners per 1,000 of Strength.
Household Cavalry	1,225	12	9·80	9·80
Cavalry of the Line	10,471	90	8·60	8·36
Royal Artillery	13,138	136	10·35	9·99
Foot Guards	5,552	47	8·47	9·76
Infantry Regiments	35,913	341	9·50	9·03

Compared with the results for 1873, this Table shews a higher rate of deaths of soldiers and pensioners combined, in all arms, except Household Cavalry, and Foot Guards.

The admissions, deaths, and invaliding in each arm of the service, from the different classes and orders of diseases, are shewn in the following Tables :—

United Kingdom.

		Household Cavalry.			Cavalry.			Royal Artillery.			Foot Guards.			Infantry Regiments.			Depôt Brigade Royal Artillery.			Depôts.			Royal Engineers.		Coast Brigade, R. A.		Army Hospital Corps.		Army Service Corps.	
	Strength	1,203			10,285			12,910			5,501			35,326			2,380			10,328			3,615		1,433		920		2,730	
Orders.	Diseases.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided	Died.	Invalided.	Died.	Invalided.	Died.	Invalided.	Died.	Invalided.
	I. *General Diseases.*																													
1	Febrile Group ...	20	...	...	421	10	1	662	8	...	308	7	...	1,455	13	3	360	2	...	673	4	2	...	...	1	...	...	...	...	...
2	Constitutional " ...	138	4	4	1,515	16	89	1,749	31	74	1,283	13	54	4,276	80	283	394	6	31	1,487	49	177	8	24	9	4	1	1	18	18
	II. *Local Diseases.*																													
	Diseases of the—																													
1	Nervous System... ...	13	...	2	145	3	39	163	6	37	40	3	10	414	21	102	46	1	23	157	5	58	5	13	1	1	1	2	1	7
2	Eye	8	...	1	111	...	8	184	...	9	52	...	...	603	...	25	55	...	3	199	...	12	...	5	...	...	...	...	...	2
3	Ear	...	...	...	27	...	2	37	...	7	15	...	...	159	1	16	23	...	6	59	...	14	...	...	...	...	...	1	...	...
4	Nose	...	...	...	3	...	...	4	...	...	1	...	...	14	...	...	2	...	...	10	...	...	...	...	...	...	...	...	...	...
5	Circulatory System ...	3	2	2	144	18	62	164	20	52	25	6	14	571	44	184	114	5	38	267	13	124	4	14	5	...	2	3	5	6
6	Absorbent " ...	12	...	...	192	...	...	219	...	1	64	...	...	528	...	1	29	...	...	135	...	...	...	...	...	...	...	...	...	...
7	Ductless Glands... ...	...	...	...	1	...	...	1	...	1	1	...	...	1	...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...
8	Respiratory System ...	78	4	1	913	13	13	1,060	26	22	320	8	7	3,005	55	69	303	6	3	1,069	13	32	1	2	3	...	2	...	2	3
9	Digestive " ...	118	...	...	1,033	3	43	1,385	9	50	494	...	2	3,829	23	76	487	...	23	1,671	15	104	...	4	2	1	...	...	2	3
10	Urinary " ...	73	...	...	713	4	11	923	4	9	502	3	2	2,301	12	18	289	1	2	830	2	12	...	...	2	...	...	...	1	...
11	Generative " ...	8	...	...	164	...	7	224	...	11	34	...	...	376	...	6	49	...	2	104	...	4	...	...	...	...	...	...	...	2
12	Organs of Locomotion ...	2	...	1	63	...	13	57	...	10	20	...	7	154	1	24	9	...	4	60	...	19	...	4	...	...	...	1	...	2
13	Cellular Tissue	42	...	...	300	...	4	305	1	2	191	...	2	772	2	5	39	...	1	225	...	1	1	...	...	...	...	...	...	...
14	Cutaneous System ...	98	...	...	1,176	...	7	1,384	...	6	364	...	1	3,290	...	20	430	...	1	1,235	...	19	...	2	...	3	...	...	...	...
	III. *Conditions, &c.*																													
	Debility	8	...	...	120	...	38	114	...	29	19	...	6	376	1	105	47	...	9	190	...	120	...	...	...	1	...	2	...	...
	IV. *Poisons.*	2	...	...	29	3	...	31	1	...	14	...	...	81	...	...	3	...	...	27	2	...	...	...	...	...	...	...	...	...
	V. *Injuries.*																													
1	Battle	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
2	Accidental	138	...	...	1,364	6	19	1,738	8	13	366	...	2	3,652	24	24	340	2	8	1,155	4	22	1	4	2	2	...	1	...	1
3	Homicidal	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
4	Self-inflicted	1	...	...	2	5	...	2	6	...	...	1	...	11	5	...	...	2	...	1	5	...	...	...	...	...	...	...	2	...
6	Judicial	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	VI. *Surg. Operations* ...	1	...	...	3	...	...	4	...	3	8	...	...	10	...	2	1	...	...	4	...	1	...	1	...	...	...	...	...	...
	Not known	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	1	...	...	1	...	...	...	...	...	...	4	...	2
	No appreciable disease ...	...	...	...	2	...	...	24	...	...	1	...	...	34	...	...	30	...	...	18	...	...	...	...	...	...	...	...	...	...
	Total	763	11	11	8,441	82	356	10,435	120	336	4,122	41	107	25,912	284	964	3,050	26	154	9,578	114	722	20	73	25	12	6	15	31	46

United Kingdom.

Ratio per 1,000 of Mean Strength.

Order.	Diseases.	Household Cavalry.			Cavalry.			Royal Artillery.			Foot Guards.			Infantry Regiments.			Depôt Royal Brigade Artillery			Depôts.			Royal Engineers.		Coast Brigade R.A.		Army Hospital Corps		Army Service Corps.	
		Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Died.	Invalided.	Died.	Invalided.	Died.	Invalided.	Died.	Invalided.
	I. *General Diseases.*																													
1	Febrile Group ...	16·6	...	...	40·9	·97	·10	51·3	·62	...	56·0	1·27	...	41·2	·37	·08	151·3	·84	...	65·2	·39	·19	...	...	·70	...	...	...	...	...
2	Constitutional ,, ...	114·7	3·32	3·32	147·3	1·56	8·65	135·5	2·40	5·73	233·2	2·36	9·82	121·0	2·26	8·01	165·5	2·52	13·03	144·0	4·74	17·14	2 21	6·64	6·28	2·79	1·09	1·09	6·59	6·59
	II. *Local Diseases.* Diseases of the—																													
1	Nervous System	10·8	...	1·66	14·1	·29	3·78	12·6	·40	2·87	7·3	·55	1·82	11·7	·59	2·89	19·3	·42	9·66	15·2	·49	5·61	1·38	3·60	·70	·70	1·09	2·17	·37	2·57
2	Eye	6·6	...	·83	10·7	...	·78	14·2	...	·70	9·5	...	...	17·1	...	·71	23·1	...	1·26	19·3	...	1·16	...	1 38	...	...	...	...	...	·73
3	Ear	...	...	...	2·7	...	·20	2·9	...	·54	2·7	...	...	4·5	·03	·45	9·7	...	2·52	5·7	...	1·36	...	...	...	...	...	1·09	...	...
4	Nose	...	...	...	·3	...	...	·3	...	...	·2	...	...	·4	...	...	·8	...	...	1·0	...	...	...	...	...	...	...	...	...	...
5	Circulatory System ...	2·5	1·66	1·66	14·0	1·75	6·03	12·7	1·55	4·03	4·5	1·09	2·55	16·2	1·24	5·21	47·9	2·10	15·97	25·9	1·26	12·00	1·10	3·87	3·48	...	2·17	3·26	1·82	2 20
6	Absorbent ,, ...	10·0	...	...	18·7	...	...	17·0	...	·08	11·6	...	...	15·0	..	·03	12·2	...	...	13·1	...	...	...	...	...	...	...	...	...	...
7	Ductless Glands	...	...	...	·1	...	...	·1	...	·08	·2	...	...		...	·03	...	...	...	·1	...	·10	...	...	...	...	...	...	...	...
8	Respiratory System ...	64·8	3·32	83	88·8	1·26	1·26	82·1	2·01	1·70	58·2	1·45	1·27	85·1	1·56	1·95	127·3	2·52	1·26	103·5	1·26	3·10	·28	·55	2·09	...	2·17	...	·73	1·10
9	Digestive ,, ...	98·1	...	...	100·4	·29	4·18	107 3	·70	3·87	89·8	...	·36	108·6	·65	2·15	204·6	...	9·66	161·8	1·45	10·07	...	1·10	1·40	·70	...	...	73	1·10
10	Urinary ,, ...	60·7	...	...	69·3	·39	1·07	71·5	·31	·70	91·3	·55	·36	65·1	·34	·51	121·4	·42	·84	80·4	·19	1·16	...	...	1·40	...	...	...	·37	...
11	Generative ,, ...	6·6	...	...	16·0	...	·68	17·2	...	·85	6·2	...	...	10·6	...	·17	20·6	...	·84	10·1	...	·39	...	...	...	...	...	...	..	·73
12	Organs of Locomotion ...	1·7	...	·83	6·1	...	1·26	4·4	...	·77	3·6	...	1·27	4·3	·03	·68	3·8	...	1·68	5·8	...	1·84	...	1·10	...	...	...	1·09	...	·73
13	Cellular Tissue	35·0	...	...	29·2	...	·39	23·6	·08	·15	34·7	...	·36	21·8	·06	·14	16·4	...	·42	21·8	...	·10	·28	...	...	...	...	...	...	...
14	Cutaneous System ...	81·5	...	...	114·3	...	·68	107·2	...	·46	66·2	...	·18	93·1	...	·57	180·7	...	·42	119·4		1·84	...	·55	...	2·09	...	...	...	...
	III. *Conditions, &c.*																													
	Debility	6·6	...	...	11·7	...	3·70	8·8	...	2·25	3·4	...	1·09	10·6	·03	2·97	19·7	...	3·78	18·4	...	11·62	...	...	...	·70	...	2·17	...	...
	IV. *Poisons*... ...	1·7	...	...	2·8	·29	...	2·4	·08	...	2·5	...	...	2·3	...	...	1·3	...	...	2·6	·19	...	...	...	...	...	...	...	...	...
	V. *Injuries.*																													
1	Battle	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·1	...	...	...	...	...	...	...	...	...	...
2	Accidental	114·7	...	...	132·6	·58	1·85	134·6	·62	1·01	66·5	...	·36	103·4	·68	·68	142·9	·84	3·36	111·8	·39	2·13	·28	1·10	1·40	1·40	...	1·09	...	·37
3	Homicidal	...	·83	...	...	...	...	·1	...	...	...	...	...	...	...	...	...	...	...	...	·10	...	...	...	...	...	...	...	...	...
4	Self-Inflicted	·8	...	...	·2	·49	...	·2	·46	...	...	·18	...	·3	·14	...	...	·84	...	·1	·49	...	...	...	...	...	...	...	·73	...
6	Judicial	...	...	...	...	·10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	IV. *Surgical Operations*	·8	...	...	·3	...	...	·3	...	·23	1·5	...	...	·3	...	·06	·4	...	...	·4	...	·10	...	·28	...	..	...	...	...	...
	Not known	...	...	...	...	...	...	...	...	...	...	...	...	...	·06	...	...	·42	...	...	·10	...	...	...	...	...	...	4·34	...	·73
	No appreciable disease ...	...	...	...	·2	...	...	1·9	...	...	·2	...	...	·9	...	...	12·6	...	...	1·7	...	...	...	...	...	...	...	...	...	...
	Total	634·2	9·13	9·13	820·7	7·97	34·61	808·3	9·29	26·02	749·3	7·45	19·44	733·5	8·04	27·29	1281·5	10·92	64·70	927·4	11·05	69·91	5·53	20·17	17·45	8·38	6·52	16·30	11·75	16·85

General Diseases.		Annual Ratio per 1,000 of Mean Strength.						
		Household Cavalry.	Dragoon Guards and Dragoons.	Royal Artillery.	Foot Guards.	Infantry Regiments.	Depôt Brigade, Royal Artillery.	Depôts.
Febrile—								
Eruptive Fevers	Admitted ..	1·7	2·9	3·7	5·6	4·9	38·2	5·2
	Died	..	·10	·15	·18	·03	..	..
Continued Fevers ..	Admitted ..	3·3	24·2	22·5	35·2	20·8	42·0	26·1
	Died	..	·68	·24	·55	·20	..	·29
Paroxysmal Fevers ..	Admitted ..	2·5	3·4	13·9	·6	5·8	35·3	21·1
	Died	..	..	·08	..	·03	..	..
Influenza ..	Admitted ..	5·0	5·3	6·1	9·8	5·2	20·2	8·9
	Died	..	..	..	..	..	..	..
Erysipelas ..	Admitted ..	3·3	3·6	4·0	4·2	3·7	11·4	3·3
	Died	..	·10	·15	·36	·08	·42	·10
Other Febrile Diseases ..	Admitted ..	·8	1·5	1·1	·6	·8	4·2	·6
	Died	..	·10	..	·18	·03	·42	..
Total of Febrile Group ..	Admitted	16·6	40·9	51·3	56·0	41·2	151·3	65·2
	Died ..	..	·98	·62	1·27	·37	·84	·39
Constitutional—								
Rheumatism ..	Admitted ..	39·9	53·1	53·9	42·0	41·9	69·5	65·7
	Died	..	..	·08	·18	·03	..	·10
Syphilis ..	Admitted ..	68·1	82·4	70·4	176·3	65·0	85·3	57·7
	Died	..	..	·08	·36	·11	..	·19
Scrofula, Phthisis, &c.	Admitted ..	5·0	9·4	8·4	10·0	11·8	14·3	16·5
	Died	3·32	1·46	2·24	1·82	2·06	2·52	3·97
Scurvy and Purpura.. ..	Admitted ..	..	·3	·2	..	·3	·4	·3
	Died	..	..	..	..	..	..	..
Anæmia	Admitted ..	..	·7	1·2	3·6	1·0	4·2	2·1
	Died	..	..	..	..	..	..	..
Other Constitutional Diseases	Admitted ..	1·7	1·4	1·4	1·3	1·0	·8	1·7
	Died	..	·10	..	..	·06	..	·48
Total of Constitutional Group..	Admitted	114·7	147·3	135·5	233·2	121·0	165·5	144·0
	Died ..	3·32	1·56	2·40	2·36	2·26	2·52	4·74

Eruptive Fevers.—Compared with 1873, there was a decrease in the prevalence of fevers of this nature in Household Cavalry, Dragoons, and Royal Artillery, an increase in the other arms; in Foot Guards, the increase was due to the occurrence of scarlet fever, and of measles. In the Depôt Brigade of Royal Artillery, the large increase is due to the admission of a number of revaccinated men into hospital.

Continued Fevers.—The proportion of admissions for continued fevers is lower than in the preceding year in Household Cavalry, Dragoons, and in Depôts, and higher in the other arms; increased or decreased proportions of deaths however, are not for the most part found in combination with higher, or lower, proportions of admissions; a lower rate of deaths from continued fevers, accompanies the lower rate of admissions in Household Cavalry, but in Dragoons, and in Depôts, the lower admission rates are coupled with higher death rates than in the preceding year; in Foot Guards, the greater prevalence of continued fevers, was accompanied by a greater mortality from them; but in the remaining arms (those which combined are numerically of most importance),—Royal Artillery, Infantry, and Depôt Brigade Royal

United Kingdom.

Artillery—increased admissions rates and reduced death rates occur together, as is often found to be the case.

Typhus Fever.—One admission on account of this fever took place in Dragoons, one in Royal Artillery, one in Foot Guards, and two in Infantry; the occurrence of cases of this dangerous form of fever, is deprived of importance by the fact that no second case appeared in any corps.

Enteric Fever.—Admissions on account of this fever took place in every arm, but the highest proportion of prevalence was in Dragoons, it having been raised in that arm by the outbreak in the 6th Dragoons, already noticed; the admissions are returned by 41 different corps, but this does not imply that the disease prevailed in as many places, the outbreak in military prison at Dublin, and that at Limerick, multiplied the apparent prevalence, as deduced from regimental returns.

Simple Continued Fever, and Febricula.—These diseases combined, represent substantially the admissions in the whole order; very great differences exist in the proportions of admissions on account of them in the several arms, which vary from 2·4 per 1,000 men in Household Cavalry, to 42· in Depôt Brigade Royal Artillery; it is probable this results from some difference of custom in the two arms in the rule observed in taking men into hospital for slight illnesses, evidence of which was shewn also in the rate of admissions for eruptive fevers, in the Depôt Brigade Royal Artillery. The rate of admissions for the two kinds of fever, in Dragoons, and in Artillery, 21· per 1,000 men, is identical, that of Infantry 20· differs little, that of Depôts is 25·6, whilst that of Foot Guards is 33·1 per 1,000 men.

Paroxysmal Fevers.—Compared with the preceding year, there is a greater rate of prevalence of fevers of this nature, in Household Cavalry, Foot Guards, Infantry, and in Depôts, and a smaller one in the other arms; as in 1873 however, so in the present year, the highest rates are those of Depôt Brigade Royal Artillery, Depôts, and Royal Artillery; residence at certain stations, notably at Sheerness, and at Purfleet, chiefly determines the presence of the disease. At Sheerness, the Depôt Brigade Royal Artillery, suffered much less from ague than in preceding year, owing as the Medical Officer thinks, to the dryness of the season, and also to the fact that recruits were not stationed at the Isle of Grain, the most ague-producing quarter in the station.

Erysipelas.—The prevalence of this disease was greater in every arm than in the preceding year, the greatest rate of prevalence being in Depôt Brigade Royal Artillery, which is 5·1 per 1,000 in excess of the corresponding rate of 1873, but an analysis of the returns shows that erysipelas has chiefly affected particular corps; thus in Household Cavalry, three out of four admissions took place in one regiment; in Dragoons, a fifth of the admissions were in one regiment; in Royal Artillery, not much short of half of the whole admissions are returned by two of the brigades only; in Infantry, two regiments, which together give but one-thirty-fifth of the strength of the arm, return one-fifth of the admissions for erysipelas, results which shew that the relations of the disease are rather with locality, or with the constitutional peculiarities of individuals composing the different arms, than with conditions arising out of the special duties of cavalry, infantry, &c.

Rheumatism.—There is an increased rate of prevalence in every arm on that of the preceding year, ranging from 4·1 per 1,000 in Household Cavalry, to 10·4 and 10·6 in Royal Artillery Depôt Brigade, and in Depôts respectively.

Syphilis.—The rate of prevalence of this disease is lower in every arm except Royal Artillery Depôt Brigade, which is higher by 16·7 per 1,000 men than in the preceding year; the decrease in Household Cavalry, is only fractional, the greatest decrease is in Royal Artillery, 20·6 per 1,000 men. Taking all arms together primary syphilis is in the proportion of 52·, and secondary of 24· per 1,000 of the strength; except in Foot Guards, the proportions of the two forms of syphilitic disease vary but little in the different arms, in Household Cavalry the rate of primary syphilis is 43·, that of secondary syphilis, 25· per 1,000 men; in Dragoons, 56· and 26· respectively; in Royal Artillery, 53· and 26·; in Foot Guards, 139· and 37·; in Infantry, 45· and 21·; in Royal Artillery Depôt Brigade, 59· and 26·; in Depôts, 36· and 21·.

Scrofula, Phthisis, &c.—Compared with the preceding year, the rate of admissions on account of these diseases, is higher in Infantry, and Royal

Artillery Brigade Depôt, but lower in the other arms; the increase in the rate of Infantry, is fractional, and may be accounted for on the supposition that in the present year a greater number of soldiers with latent phthisis may have been retained with their regiments, instead of being transferred to Depôts. The order in which the different arms come with reference to the prevalence of diseases of this nature, is not quite the same as in 1873, but in both years the rate of Household Cavalry, is the lowest, and that of Depôts, the highest. The rate of mortality corresponds with the rate of prevalence in being lower in Household Cavalry, Dragoons, and in Foot Guards; in Infantry, the rate of deaths is lower, though that of prevalence is higher; in Royal Artillery Depôt Brigade, increased prevalence and increased mortality are conjoined; in the remaining arms, diminished rates of prevalence are accompanied by increased rates of mortality.

In order to ascertain more exactly the comparative loss sustained by the different arms from the diseases under notice, the deaths and invaliding from them in each arm, have been taken together, the results are shewn in the subjoined Table:—

Scrofula and Phthisis.	Loss per 1,000 men by death and invaliding combined.
Household Cavalry	5·82
Dragoons	8·18
Royal Artillery	5·58
Foot Guards..	8·54
Infantry	6·93
Depôt Brigade, Royal Artillery	11·76
Depôts	11·33

Local Diseases.—*Diseases of the Nervous System.*—The rate of prevalence of diseases in this order is greater than in the preceding year, in all arms, excepting Foot Guards, and Depôts; in Household Cavalry, the rate is the same for both years; the rate of deaths is higher in Foot Guards, Infantry, and Royal Artillery Depôt Brigade, and lower in the remaining arms; in Household Cavalry, no deaths occurred in either year. The diseases which have caused the great majority of the admissions in the order, are epilepsy, and neuralgia, the greatest proportional prevalence of the former disease was in Royal Artillery.

Diseases of the Eye.—The rate of prevalence is greater in all arms, excepting Depôts than in the preceding year; the increase is chiefly caused by the greater number of admissions for conjunctivitis; but the regiment in which this disease prevailed most—the 1st Battalion 22nd Foot, only returns 39 admissions.

Diseases of the Circulatory System.—Compared with the preceding year, the proportion of admissions for diseases of this nature is lower in Household Cavalry, Royal Artillery, and Foot Guards, and higher in the other arms; the highest rate, that of Royal Artillery Depôt Brigade, is more than two-fold greater than in 1873, and this increase explains the reason of the fall in the rate of Royal Artillery; compared with the preceding year the rate of deaths is lower in all arms, excepting in Dragoons, and Royal Artillery, both of which shew a fractional increase.

In the following Table the relative prevalence of organic, and functional diseases, of the heart, and of aneurism, in the different arms is shewn:—

United Kingdom.

	Annual Ratio per 1,000 of the Strength in											
	Household Cavalry.			Cavalry of the Line.			Royal Artillery.			Foot Guards.		
	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.
Org. Diseases of Heart ..	2·49	1·66	·83	5·15	·97	3·01	4·11	·78	2·25	2·36	·54	2·18
Functional do.	..	..	..	6·91	..	1·16	5·42	..	·85	·73	..	·16
Aneurism ..	..	..	..	·48	·78	·19	·85	·78	·08	·54	·54	..

	Annual Ratio per 1,000 of the Strength in								
	Infantry Regiments.			Depôt Brigade, Royal Artillery.			Depôts.		
	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.
Organic Diseases of Heart ..	5·43	·45	2·86	17·65	1·26	10·09	9·00	·77	6·78
Functional „ ..	7·30	..	·82	24·37	..	3·36	12·78	..	1·74
Aneurism	·90	·79	·28	1·68	·42	·84	·96	·48	·48

An examination of the figures in the Table will shew the different proportions in which heart affections prevailed in the several arms of the service, and that some radical differences existed in the conditions to which they were subject. A striking difference is seen in the rate of prevalence of functional disease of the heart, which cannot be accounted for on the supposition that the same affection appears in one return as a functional, and in the other as an organic disease, as it will be found that whilst in Infantry of the Line, the combined rate is 12·73, that of Foot Guards, is only 3·09 ; if the proportions of invaliding for diseases of the heart be taken, it is found that for organic and functional together, the rate of Infantry is 3·68, and that of Foot Guards 2·34 per 1,000 men ; if the death rates of both varieties of heart disease be compared, that of Infantry is found to be, ·45, and that of Foot Guards ·54 per 1,000 men ; it is therefore evident that whilst diseases of the heart, occur in very much greater frequency in the first-named arm, their severity does not exceed that of the same diseases in the Foot Guards. These results would be confirmed and strengthened, were the statistics of Depôts, to be added to Infantry ; as will be apparent if the admission rates of Depôts, for diseases of the heart, are contrasted with those of Infantry. Assuming that the number of admissions returned by each arm, represents the prevalence of diseases of the heart in Infantry, and in Foot Guards respectively, the question arises to what cause is the greater prevalence of diseases of the heart in Infantry, than in Foot Guards, attributable ? It cannot be the effect of severer drill or duty, in those respects the balance is probably not in favour of the troops stationed in London. No solution of the question can be given, but inquiry into the subject may be narrowed by the knowledge, that in some regiments of Infantry, functional diseases of the heart are as little prevalent as in the Foot Guards; in the present year, nearly one-fourth of all admissions for functional diseases of the heart in Infantry, are returned by two regiments, which together do not make up one-thirtieth of the strength, an excessive proportion even allowing for the fact that re-admissions of the same individuals may have contributed to it.

Diseases of the Respiratory System.—The prevalence of diseases in this order was greater than in 1873, in every arm excepting Household Cavalry, Royal Artillery, and Foot Guards; in the instance of the last-named arm, concurrently with a reduced rate of prevalence, that of mortality is also lower, but in Household Cavalry, and in Artillery, lower admission rates, and higher death rates, are conjoined; in all the remaining arms, being those in which the rate of prevalence is greater, that of deaths is lower.

Diseases of the Digestive System.—In this order, the rate of prevalence is lower in Household Cavalry, than in the preceding year, in Foot Guards, it is the same in both years, in all other arms the rate is higher; the increase in the instance of Infantry, 30·5 is considerably more than one-third of the whole proportion of admissions in the arm. The rate of mortality from diseases in this class is higher in Artillery, Infantry, and Depôts, which in point of strength make up the greatest part of the force, but is lower in all other arms.

Diseases of the Urinary System.—The rate of admissions for diseases of this nature is fractionally higher in Household Cavalry, and is higher by 8· per 1,000 men in Foot Guards, but in all other arms there is a reduction in the rate compared with that of 1873, the reduction is large in every instance except in that of Royal Artillery Depôt Brigade, it varies from 39·7 per 1,000 men in Royal Artillery, to 16·1 in Infantry; the probable cause of this nearly general reduction has already been adverted to.

INJURIES.—In every arm the rate of admissions on account of accidental injuries exceeds that of the preceding year to an important extent; and that of deaths consequent on injuries is also higher in every arm excepting in Household Cavalry, Foot Guards, and Depôts; a considerable number of injuries occurred in consequence of the long continued frost in the begining of the year, but this will not account for the whole of the excess of injuries in this class.

The admissions, deaths, and invaliding in each of the corps serving in the United Kingdom during the whole year, are shewn in the following Table:—

Jnited Kingdom.

Regiments, &c.	Average Annual Strength.	Admitted into Hospital.	Died.			Invalided.	Annual Ratio per 1,000.			Stations.	
			In Hospital.	Out of Hospital.	Total.		Admitted.	Died.	Invalided.		Months.
1st Life Gds.	402	235	3	..	3	11	584·6	7·46	27·36	London .. Windsor .. A. M.* ..	4 7 1
2nd ,,	401	238	3	1	4	..	593·5	9·97	..	Windsor .. London ..	4 8
R. Horse Gds.	400	290	2	2	4	..	725·0	10·00	..	London ..	12
Total Household Cavalry	1,203	763	8	3	11	11	634·2	9·13	9·13		
1st Dn. Gds.	494	222	1	1	2	6	449·4	4·05	12·15	Ballincollig (with det.)	12
2nd ,,	507	414	6	..	6	14	816·6	11·83	27·61	Brighton .. A. M.* .. On march .. Leeds, with det.	4½ 1½ ½ 5½
3rd ,,	503	361	3	..	3	21	717·7	5·96	41·75	Norwich and Ipswich On march .. York ..	6 ½ 5½
4th ,,	603	288	2	..	2	17	477·6	3·32	28·19	Cahir, with det. Curragh and Newbridge	5½ 6½
5th	553	413	4	1	5	13	746·8	5·42	23·51	Dundalk, with det. Dublin ..	8
6th ,,	595	689	1	..	1	21	1157·9	1·68	35·29	Hounslow .. A. M.* .. Shorncliffe ..	 1 5
7th ,,	477	348	3	2	5	18	729·5	10·48	37·74	Manchester.. Curragh .. Cahir, with det.	5 3½ 2½
1st Dragoons	589	338	5	1	6	13	573·9	10·19	22·07	Edinburgh, with det. at Hamilton	12
2nd Dragoons	579	744	3	1	4	15	1284·9	6·91	25·91	Aldershot .. Brighton, with det. at Woolwich	6 6
6th ,,	517	439	3	1	4	6	849·1	7·74	11·61	Newbridge and Curragh Dublin ..	8½ 3½

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* The letters "A. M." indicate that the Corps, or a portion of it, took part in the Autumn Manœuvres.

United Kingdom.

Regiments, &c.	Average Annual Strength.	Admitted into Hospital.	Died. In Hospital.	Died. Out of Hospital.	Died. Total.	Invalided.	Annual Ratio per 1,000. Admitted.	Annual Ratio per 1,000. Died.	Annual Ratio per 1,000. Invalided.	Stations.	Months.
h Hussars	499	470	2	1	3	27	941·9	6·01	54·11	Maidstone with det. at Shorncliffe A. M.* .. On march .. Norwich and Ipswich	6 1 $\frac{1}{2}$ 4$\frac{1}{2}$
h ,,	560	332	5	3	8	8	592·9	14·29	14·29	Longford, with det.	12
h Lancers	593	457	3	6	9	25	770·7	15·18	42·16	York .. Colchester ..	6$\frac{1}{3}$ 5$\frac{2}{3}$
2th ,,	599	520	1	..	1	10	868·1	1·67	16·69	Leeds, with dets. Manchester & Liverpool	6 6
4th Hussars	609	447	2	1	3	18	734·0	4·93	29·56	Dublin .. Aldershot ..	5 7
7th Lancers	505	427	4	..	4	29	845·5	7·92	57·43	Dublin .. Dundalk, with dets.	8 4
9th Hussars	500	294	4	1	5	37	588·0	10·00	74·00	Aldershot .. Hounslow, with dets.	6 6
0th ,,	510	574	2	4	6	27	1128·0	11·76	52·94	Aldershot ..	12
1st ,,	493	664	5	..	5	31	1346·8	10·14	62·88	Colchester .. A. M.* .. Aldershot ..	7 1 4
Total avalry of Line	10,285	8,441	59	23	82	356	820·7	7·97	34·61		
ren. Gds., 1st Bn. ..	773	578	7	4	11	19	747·7	14·23	24·58	Windsor .. London .. Aldershot ..	4 7 1
2nd Bn. ..	775	811	..	3	3	10	1046·4	3·87	12·90	London ..	12
3rd Bn. ..	772	513	4	2	6	15	664·5	7·78	19·43	London .. Dublin .. Curragh ..	5 5 2
oldm. Gds., 1st Bn. ..	783	397	5	1	6	8	508·3	7·66	10·22	London .. Windsor ..	7 5
2nd Bn. ..	792	588	6	..	6	17	742·4	7·58	21·46	London ..	12
cots F. Gds., 1st Bn. ..	796	733	3	1	4	18	920·9	5·03	22·61	London ..	12
2nd Bn. ..	810	502	5	..	5	20	619·8	6·17	24·69	Dublin .. London .. Windsor ..	4 5 3
otal Foot Guards	5,501	4,122	30	11	41	107	749·3	7·45	19·44		

United Kingdom.

Regiments, &c.	Average Annual Strength.	Admitted into Hospital.	Died.			Invalided.	Annual Ratio per 1000.			Stations.
			In Hospital.	Out of Hospital.	Total.		Admitted.	Died.	Invalided.	
Royal Horse Artillery:										
B Brigade ..	1,255	897	6	3	9	27	714·7	7·17	21·51	A, Christchurch, 4 Woolwich, 7; Aldershot, 1.—B, Curragh, 4; Aldershot, 1; Woolwich, 7.—C, Canterbury, 4; Aldershot, 8.—D, Dublin, 4; Canterbury, 8.—E, Coventry, 4; Christchurch, 8.—F, Aldershot, 4; Dorchester, 8.—G, Exeter, 4; Woolwich, 8.—H, Birmingham, 4; Aldershot, 8.
D Brigade ..	1,486	1,112	13	3	16	23	748·3	10·77	15·48	A, Woolwich, 3⅓ On march, ⅔ Dublin, 8.—B, Woolwich, 3½; On march, ½; Dublin, 8.—C, Woo wich, 3⅓; On march, ⅓; Limerick, 2; Curragh, 6⅓.—D, Exeter, 3½ On march, ½; Curragh, 8.—E, Woolwich, 3⅔; Exeter, 8⅓.—F, Alde shot, 3½; Birmingham, 8½.—G, Dorchester, 3½; On march, ½ Coventry, 8.—H, Dublin, 3⅔; Exeter, 8⅓.
Riding Establishment	211	221	1	..	1	4	1047·3	4·74	18·96	Woolwich, 12.
Rl. Artillery:										
1st Brigade..	1,513	1,335	9	1	10	61	882·4	6·61	40·32	A, Shorncliffe, 12.—B, Shorncliffe, 5 Preston, 7.—C, Sheffield, 3; Leith Fort, 9.—D, Trowbridge, 12.—E, Newport and Brecon, 12.—F, Ipswich, 12.—G, Shorncliffe, 3⅔ Sheffield, 8⅓.—H, I, and K, Aldershot, 12.
3rd „ ..	961	807	9	4	13	32	839·7	13·53	33·30	No. 2, Dover, 12.—Nos. 3 & 4, Shoeburyness, 6⅔; Dover, 5⅓.—No. 5, Newhaven, 12.—Nos. 6 & 7 Dover, 6⅔; Shoeburyness, 5⅓.—No. 8, Dover, 12.
4th „ ..	1,493	1,568	12	1	13	33	1050·2	8·73	22·10	A, Dublin, 3⅔ Woolwich, 8⅓.—B, Fermoy, 3⅔; Shorncliffe, 8⅓.—C, Ballincollig, 3⅓; Shorncliffe, 8⅔ —D, Clonmel, 3⅔; Woolwich, 8⅓.—E, Limerick, 3⅔; Woolwich, 8⅓.—F, Kilkenny, 4; Hilsea, 8.—G, Athlone, 3⅔; Hilsea, 8⅓.—H, Aldershot, 3½; Bristol, 7½; A. M.,* 1.—I, Curragh, 4; Northampton, 7 A.M.,* 1.—K, Bristol, 7⅓; Aldershot, 4⅔.
10th „ ..	970	372	4	2	6	16	383·5	6·19	16·49	Devonport & Pembroke Dock .. 12
14th „ ..	1,509	1,315	13	6	19	56	871·4	12·59	37·11	A, Weedon, 3⅔ Dublin, 8⅓.—B, Weedon, 3⅔; Clonmel, 8⅓.—C, Northampton, 8; Limerick, 4.—D, Newcastle, 8⅓; Fermoy, 3⅔.—E, Aldershot, 8; Athlone, 4.—F, Leith Fort, 3⅓; Kilkenny, 8⅔.—G, Preston, 3⅔; Ballincollig, 8⅓.—H, Aldershot, 4⅔; Portsmouth, 7⅓.—I & K, Newcastle, 4; Woolwich, 8.

United Kingdom.

Regiments, &c.	Average Annual Strength.	Admitted into Hospital.	Died.			Invalided.	Annual Ratio per 1,000.			Stations.
			In Hospital.	Out of Hospital.	Total.		Admitted.	Died.	Invalided.	
th Brigade	1,531	1,435	17	1	18	42	937·3	7·18	27·43	A, Woolwich, 3⅔; Newcastle, 8⅓.—B, Devonport, 12.—C, Woolwich, 4; Newcastle, 8.—D, Woolwich, 3⅔; Weedon, 8⅓.—E, Woolwich, 4⅓; Weedon, 7⅔.—F, Sheerness, 4⅓; Aldershot, 7⅔.—G, Hilsea, 4; On march, 1; Newcastle, 7.—H, Chichester, 3½; Exeter, 8½.—I, Hilsea, 3⅔; Chichester, 8⅓.—K, Exeter, 4; Aldershot, 8.
st „ ..	983	826	4	1	5	27	840·3	5·09	27·47	Portsmouth and Isle of Wight .. 12
nd „ ..	998	547	8	2	10	15	548·1	10·02	15·03	No. 1, Dublin, 12.—No. 2, Limerick, 4½; Cork, 7½.—No. 3, Cork, 4½; Limerick, 7½.—No. 4, Alderney, 5½; Guernsey, 6½.—No. 5, Guernsey, 5½; Alderney, 6½.—No. 7, Weymouth, 12.
Total Royal Artillery	12,910	10,435	96	24	120	336	808·3	9·29	26·02	
Infantry:										Months.
st Foot, 1st Bn.	611	514	5	6	11	18	841·2	18·04	29·46	Aldershot .. 6 Edinburgh, with det. at Greenlaw 6
nd Foot, 2nd Bn.	607	278	1	1	2	8	458·0	3·29	13·18	Athlone, with det. 6 Dublin.. .. 6
rd Foot, 2nd Bn.	629	396	5	1	6	14	629·6	9·54	22·26	Dublin .. 4⅓ Limerick and Clare Castle .. 7⅔
th Foot, 2nd Bn.	493	324	5	1	6	17	655·7	12·17	34·48	Woolwich .. 6 Aldershot .. 1 Cork, with det. 5
th Foot, 2nd Bn.	598	448	5	2	7	3	749·2	11·71	5·02	Kilkenny, with det. 6 Jersey 6
th Foot, 2nd Bn.	590	425	7	2	9	7	720·3	15·25	11·86	Belfast.. .. 6 Guernsey & Alderney 6
th Foot, 1st Bn.	626	462	1	1	2	23	738·0	3·19	36·74	Dover .. 12
th Foot, 2nd Bn.	607	432	1	1	2	9	711·7	3·29	14·83	Cork, with det. 12
th Foot, 1st Bn.	553	564	1	2	3	24	1019·9	5·42	43·40	Pembroke Dock 12
th Foot, 2nd Bn.	600	474	1	1	2	21	790·0	3·33	35·00	Chatham .. 6 A. M.* .. 1 Colchester .. 5
th Foot, 2nd Bn.	597	481	3	..	3	24	805·7	5·03	40·20	Devonport .. 12
th Foot, 1st Bn.	640	470	2	..	2	8	734·4	3·12	12·50	Curragh .. 7 Kinsale, with det. 5

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Regiments, &c.	Average Annual Strength.	Admitted into Hospital.	Died.			Invalided.	Annual Ratio per 1,000.			Stations.	
			In Hospital.	Out of Hospital.	Total.		Admitted.	Died.	Invalided.		Month
13th Foot, 2nd Bn.	669	332	4	1	5	6	496·3	7·47	8·97	Newry, with det. Belfast, with det.	6 6
14th Foot 2nd Bn.	532	560	4	..	4	16	1052·6	7·52	30·08	Aldershot ..	12
15th Foot, 1st Bn.	579	587	4	..	4	6	1013·8	6·91	10·36	Guernsey & Alderney Aldershot ..	6 6
15th Foot, 2nd Bn.	838	478	4	1	5	13	570·4	5·96	15·51	Gosport ..	12
16th Foot, 1st Bn.	585	431	1	..	1	9	736·8	1·71	15·39	Plymouth ..	12
16th Foot 2nd Bn.	659	496	3	2	5	10	752·7	7·59	15·17	Chatham .. A. M.* ..	10 1
17th Foot, 2nd Bn.	601	443	1	4	5	10	737·1	8·32	16·64	Devonport .. Curragh .. Athlone, with det.	6 2 3
18th Foot, 2nd Bn.	551	521	1	..	1	4	945·6	1·81	7·26	Gosport ..	12
19th Foot, 1st Bn.	617	605	3	1	4	17	980·6	6·48	27·55	Aldershot .. Chester with det.	6 6
20th Foot, 2nd Bn.	565	483	4	..	4	5	854·9	7·08	8·85	Buttevant, with det. at Cork Preston ..	7 5
21st Foot, 2nd Bn.	543	469	11	..	11	34	863·7	20·26	62·62	Glasgow with det. Aldershot ..	4 7
22nd Foot, 1st Bn.	577	450	3	1	4	8	779·9	6·93	13·86	Chester, with det. Manchester with det.	6 6
23rd Foot, 1st Bn.	668	423	6	2	8	13	633·2	11·98	19·46	Aldershot ..	12
24th Foot, 2nd Bn.	616	606	7	1	8	21	933·8	12·99	34·09	Aldershot ..	12
25th Foot, 1st Bn.	641	332	3	..	3	6	517·9	4·68	9·36	Kinsale, with det. Buttevant with det.	7 5
27th Foot ..	682	431	5	..	5	10	632·0	7·33	14·66	Curragh .. Enniskillen ..	6 5
29th ,, ..	589	285	3	1	4	4	483·9	6·79	6·79	Templemore Curragh .. Dublin ..	6 2 3
30th ,, ..	607	326	2	1	3	3	537·1	4·94	4·94	Portsmouth..	12
33rd ,, ..	637	277	3	2	5	10	434·9	7·85	15·70	Fermoy ..	12
34th ,, ..	599	454	1	1	2	25	757·9	3·34	41·74	Dublin .. Kilkenny, with det.	6 6
35th ,,	657	286	3	2	5	9	435·3	7·61	13·70	Cork, with det. Curragh ..	7 5
38th ,, ..	586	609	6	2	8	53	1039·2	13·65	90·44	Aldershot ..	12
46th ,, ..	538	343	4	1	5	25	637·5	9·29	46·47	Dublin .. Curragh .. Birr	7 1 1

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Regiments, &c.	Average Annual Strength.	Admitted into Hospital.	Died.			Invalided.	Annual Ratio per 1,000.			Stations.	
			In Hospital.	Out of Hospital.	Total.		Admitted.	Died.	Invalided.		Months.
7th Foot ..	594	553	6	1	7	30	931·0	11·78	53·51	Preston .. Aldershot ..	6 6
0th ,, ..	574	356	2	1	3	10	620·2	5·23	17·42	Colchester .. A. M.* .. Dublin ..	6 1 5
0th ,, 3rd Bn.	557	429	6	2	8	75	770·2	14·36	134·65	Shorncliffe .. Aldershot .. Chatham ..	4½ 1½ 6
0th ,, 4th ,,	575	355	4	1	5	9	617·4	8·69	15·65	Portland .. Devonport ..	6½ 5½
1st Foot ..	569	422	..	2	2	6	741·7	3·51	10·54	Enniskillen, Curragh ..	3⅔ 8⅓
4th ,, ..	596	411	4	..	4	8	689·6	6·71	13·42	Limerick .. Glasgow ..	4⅓ 7⅓
7th ,, ..	528	521	9	1	10	24	986·7	18·94	45·45	Aldershot .. Chatham ..	6 6
8th ,, ..	551	351	5	1	6	9	637·0	10·89	16·33	Fort George Aldershot ..	4⅓ 7⅔
9th ,, ..	459	451	2	..	2	18	982·6	4·36	39·22	Aldershot ..	12
2nd ,, ..	606	352	6	1	7	10	580·9	11·55	16·50	Chatham .. Aldershot .. Shorncliffe ..	6 1 5
4th ,, ..	566	533	3	..	3	2	941·7	5·30	3·53	Jersey .. Aldershot ..	6 6
8th ,, ..	540	415	6	..	6	20	768·5	11·11	37·04	Colchester ..	12
0th ,, ..	520	398	4	1	5	25	765·4	9·62	48·08	Aldershot .. Dover ..	7 5
1st ,, ..	573	381	3	1	4	8	664·9	6·98	13·96	Edinburgh .. Newry.. ..	6 6
3rd ,, ..	553	625	..	..	..	20	1130·2	..	36·17	Aldershot .. Woolwich ..	6 6
4th ,, ..	560	380	3	1	4	34	678·6	7·14	60·71	Mullingar .. Curragh ..	4 8
5th ,, ..	570	409	2	2	4	28	717·5	7·02	49·12	Manchester .. Fleetwood ..	6 6
6th ,, ..	567	416	2	3	5	25	733·7	8·82	44·09	Warley ..	12
9th ,, ..	572	250	7	..	7	4	437·1	12·24	6·99	Shorncliffe .. Fort George	4 8
00th ,, ..	599	420	5	..	5	8	701·2	8·35	13·36	Portsmouth Dublin .. Mullingar with det.	4 4½ 3½
02nd ,, ..	577	331	4	4	8	12	573·7	13·86	20·80	Isle of Wight Portland with det.	6½ 5½
03rd Foot ..	581	386	1	1	2	8	664·4	3·44	13·77	Newport, with det.	12
04th ,, ..	540	405	2	..	2	12	750·0	3·70	22·22	Aldershot .. Dover	7 5
ifle Brig., 1st Bn.	550	313	4	1	5	36	569·1	9·09	65·45	Aldershot .. Portsmouth Winchester..	6 4⅔ 1⅓
ifle Brig., 3rd Bn.	562	554	5	1	6	30	985·8	10·68	53·38	Winchester Aldershot ..	3½ 8½
Total Infantry egiments	35,326	25,912	218	66	284	964	733·5	8·04	27·29		

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The relatively small strengths of the three regiments of Household Cavalry cause fluctuations in their vital statistics, and make comparisons one year with another, of little value; in the present as in the preceding year the Royal Horse Guards, shews the highest admission, and death rates; a disproportionate number of the admissions in the corps were due to rheumatism, and to chest affections; of the four deaths, two were due to pericarditis, and one to pneumonia. The lowest admission and death rates are those of the 1st Life Guards, but the evidence of a good standard of health is not sustained in the invaliding rate of the Corps, which is much in excess of that of the preceding year, three men were invalided on account of phthisis, of which disease also two men, died during the year.

In Cavalry of the Line, the highest admission rate is that of the 21st Hussars, stationed at Colchester for the greater part of the year. It exceeds the average rate of all Cavalry by 526·1 per 1,000 men, and is three-fold higher than the rate of the lowest; combined with this in the 21st Hussars, is a death rate exceeding, and an invaliding rate nearly double that of the average. The regiment had returned from service in India, and the men suffered from the cold of a severe winter, chest affections, and sore throat, being prevalent, the admissions were also increased by the occurrence of an unusual number of accidents; in addition to these causes of increased sickness, the admissions for hepatitis, dysentery, and debility, shew that the regiment contained men whose health was deteriorated by tropical service; two deaths were due to the first-named disease. The invaliding of the 21st Hussars was greatly increased by disabilities acquired in India, but rheumatism, secondary syphilis, and diseases of the heart, also caused the invaliding of comparatively many men. The highest death rate of any regiment of Cavalry, is that of the 9th Lancers, stationed at York, and at Colchester, it is nearly twice as high as that of the average of all Cavalry, but an analysis of the causes of the deaths, does not shew that any of them were due to preventible illness; three were due to diseases of the heart, one to pneumonia, and three to accidental causes. The invaliding rate of this regiment is very high, no doubt on account of the number of men found unfit to embark with the regiment for service in India. No regiment of Cavalry unites the lowest rates of admissions, deaths, and invaliding, but the 1st Dragoon Guards, stationed at Ballincollig, and at outstations approaches more nearly than any other, to the standard of healthiness which the union of the three rates would indicate.

A comparison of the statistics of the two Brigades of Royal Horse Artillery, shews that no material differences existed between them in respect of health; a higher death rate in the one case being counterbalanced by a higher invaliding rate in the other, in both all the rates are moderate. Of other Brigades of Royal Artillery, the 4th (batteries of which were stationed in Dublin, Woolwich, Fermoy, and Shorncliffe), has the highest rate of admissions, 241·9 per 1,000 men higher than the rate of all Artillery combined, but both the death, and the invaliding rates, of this Brigade are lower than those of the average of the arm; the most numerous admissions were those from bronchitis, tonsillitis, and contusions; of diseases important in their nature and consequences rather than in the actual amount of inefficiency due to them, erysipelas caused 14, and conjunctivitis 33, admissions.

In Foot Guards, the highest admission rate is that of the 2nd Battalion Grenadier Guards, stationed in London, it exceeds by 297·1, that of the average of all the Battalions of Guards, and by 538·1, the rate of the 1st Battalion Coldstream Guards, the death rate of the Battalion is lower than that of any other, and the invaliding rate, though not the lowest, is very low; more than one-fourth of the admissions were due to venereal diseases. The death rate of the 1st Battalion Grenadier Guards is the highest, being nearly twice that of the average of all Battalions of Guards, one of the deaths was caused by erysipelas, and one was due to pyæmia.

In Infantry, the highest proportion of admissions is that of the 2nd Battalion 14th Foot, stationed at Aldershot, for the whole year; it exceeds the average rate of this arm by 319·1 per 1,000 men, the death rate of the Battalion, however, is a little lower, and its invaliding rate is only a little higher, than the corresponding rates of the average of Infantry. The comparatively high

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admission rate of the Battalion was due, more to an increase, spread over the admissions generally, than to exceptionally numerous admissions from any particular disease. The highest death rate in Infantry, that of the 2nd Battalion 21st Foot, exceeds the average rate by 12·25 per 1,000, the invaliding rate of this Battalion is also high. Of the deaths, five were due to phthisis, and four men were invalided for that disease. The invaliding rate of the 3rd Battalion 60th Foot, is the highest in Infantry, exceeding the average of the arm by the very high proportion of 107·36 per 1,000 men, and it is in succession to a very high rate in the preceding year. In 16 instances invaliding was due to hypertrophy of the heart, and in 25 to general debility. The Medical Officer states that the majority of the men invalided were "old soldiers suffering from organic disease, or disabilities, the result of prolonged service in a tropical climate." He expressly states that the recruits received during the year were satisfactory. No regiment of Infantry, unites the three lowest rates of sickness, deaths, and that of invaliding, but it will be noticed that the rates of the 2nd Battalion 2nd Foot stationed at Athlone, and Dublin, those of the 1st Battalion 12th Foot, stationed at the Curragh, and Kinsale, those of the 1st Battalion 16th Foot stationed at Plymouth, and those of the 2nd Battalion 18th Foot stationed at Gosport, are very favourable. Several other corps shew a standard of health which may be considered as good as or even better than that of those quoted, according as more or less importance is attached to one or other of the results exhibited in the prevalence of sickness, in the mortality, or in the number of men invalided for sickness during the year.

RE-VACCINATION.—The number of soldiers re-vaccinated during the year is much smaller, and of recruits much larger, than in 1873; the increase in the latter is accounted for by a greater number of enlistments.

The following Table shews the number of men belonging to the Regiment serving at Home, who were Vaccinated during the Year 1874, and the proportions per 1,000 men :—

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	Results.	In those who bore marks of previous Small-Pox.	In those who bore good marks of previous Vaccination.	In those who bore doubtful marks of previous Vaccination.	In those who bore no marks of previous Vaccination or Small-pox.	Total.
No. of Soldiers, not Recruits.	A perfect Vaccine Pustule ..	59	1,152	29	11	1,251
	A modified ditto ..	99	1,659	57	20	1,835
	A failure in	75	816	83	12	986
	Total	233	3,627	169	43	4,072
Ratio per 1,000 of Soldiers, not Recruits.	A perfect Vaccine Pustule ..	253·2	317·6	171·6	255·8	307·2
	A modified ditto ..	424·9	457·4	337·3	465·1	450·6
	A failure	321·9	225·0	491·1	279·1	242·2
	Total	1000·0	1000·0	1000·0	1000·0	1000·0
No. of Recruits.	A perfect Vaccine Pusutle ..	417	6,137	123	234	6,947
	A modified ditto ..	604	7,622	135	181	8,542
	A failure in	368	3,478	38	71	3,955
	Total	1,389	17,273	296	486	19,444
Ratio per 1,000 of Recruits.	A perfect Vaccine Pustule ..	300·2	357·4	415·5	481·5	357·3
	A modified ditto ..	434·9	441·3	456·1	372·4	439·3
	A failure	264·9	201·3	128·4	146·1	203·4
	Total	1000·0	1000·0	1000·0	1000·0	1000·0

When compared with the results of 1873, a decrease is observed in the proportion of perfect vesicles among soldiers, and an increase among recruits. In the former the decrease occurred chiefly among those with doubtful marks of vaccination, in the latter the increase was general, but most marked among those without marks either of small-pox or vaccination. In the modified vaccine vesicle there was an increase, both among soldiers and recruits, in every group, while the proportion of failures was greater among the former, and less among the latter; the increase among the soldiers occurring in those with marks of small-pox and with doubtful marks of vaccination, and the decrease among the recruits in all the groups.

The following Table shews the condition as to vaccination of recruits found fit for the service on primary inspection by Army Medical Officers. No information on this head is available respecting those primarily inspected by Civil Medical Practitioners:—

	Number found fit.	Had marks of Vaccination.	Had marks Small-pox.	Neither marks of Vaccination nor of Small Pox.
Inspected by Army Medical Officers	16,790	15,202	937	651
Ratio per 1,000 found fit ..	—	905·4	55·8	38·8

The results for this year shew no material difference when compared with those of the preceding year.

HOME STATIONS.

SANITARY REPORT.

Aldershot.

United Kingdom.

Surgeon-General Prendergast reports that the health of the troops during the year has been good, and in no way affected by any prominent sanitary defect.

The following sanitary improvements and alterations have been executed during the year :—

The erection of water-closets at the schools in the north and south camps; conversion of latrines from old to new pattern in the west cavalry barracks; soil pipes removed to the outside of officers' quarters, east infantry barracks; provision of heating apparatus in the brigade guard-room, east infantry barracks; and extension of drainage of Cove Common, &c.

The great sanitary defect is the want of a continuous and abundant supply of water for sanitary and conservancy purposes. This was seriously felt during the drought which continued from 1st to the end of January, and from the middle of March to August, and also in November.

Eastern District.

Deputy Surgeon-General Stewart reports that the general health of troops has been satisfactory in the district. He repeats his remarks made in previous reports as to the bad character of the accommodation for the married soldiers at Great Yarmouth, Norwich and Warley, and adds :—

" During the year, official attention has been paid to the improvement of existing, and the providing of increased latrine accommodation, particularly for women and children at Colchester, Warley and Ipswich. The ablution-rooms have also been improved at certain stations and the women's wash-houses. New stoves have been furnished to many of the huts in Colchester camp. The huts have been thoroughly overhauled and repaired, and they have been painted throughout. Some additional huts have been erected, and a general re-appropriation of the whole camp has taken place, with the view of bringing in a third infantry regiment. To facilitate this a double range of married quarters has been built in the Abbey Field. The superficial drainage of the barracks at Norwich has been improved, and some cultivated land close to the Yarmouth (Southtown) barracks has also been drained."

At Norwich an excellent new hospital, on the site of the old one, has been finished, and is now in occupation.

At Colchester, the only large station in the district, a re-appropriation of the hospital accommodation has been made. A new female hospital has also been opened in camp, with increased accommodation for parturient cases.

South-Eastern District.

Deputy Surgeon-General Watt remarks that the health of the troops in the district has been satisfactory. In the early part of the year, scarlatina prevailed extensively among the children of soldiers at Canterbury, and measles amongst those at Dover. The disease in both instances seems to have been carried into barracks from the town, but it did not extend to the troops.

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A few cases of diphtheria (two of which proved fatal) occurred among the children of the 2nd Battalion 18th Foot, at Shorncliffe; the disease was prevalent at the time in the adjacent village of Sandgate.

Dover (*Western Heights*).—A new hospital hut has been completed and opened for the reception of patients, thereby much increasing the accommodation for sick. A hut for the reception and treatment of infectious diseases among soldiers is much needed, and the want of a suitable building for the accommodation of women and children affected with this class of diseases is also felt. The necessity for the provision of these buildings has been pointed out in the Annual Estimates.

Chatham.

Deputy Surgeon-General Bowen remarks:—"The drainage at Brompton Barracks has been found defective, and improvements on a large scale have been commenced.

"It having been alleged that some of the sickness (ague) at Tilbury Fort was caused by impure water, as well as by the marshy situation of the fort, inquiries have been instituted on the subject.

"The circumstances are briefly these: The troops at Tilbury Fort are supplied with water caught on the roofs of buildings, and stored in underground tanks, at or below the level of the subsoil water and high-water mark of the river. The railway officials and servants at the station a few hundred yards distant obtained their supply of water from another source. Ague is very common amongst the troops at Tilbury Fort; almost unknown at the railway station. During six months last year, pending some repairs to the tank, water was obtained from the railway station. During this period ague disappeared from Tilbury, but on the tank water being again taken into use cases of ague again made their appearance."

A detailed and illustrated report will appear in the next volume for 1875; but in the meantime, the main facts regarding the prevalence of malarious disease at Tilbury Fort, in connection with the source of water supply, as furnished by Surgeon-Major E. G. Faught, are as follows:—

Tilbury Fort, on the banks of the Thames, in the Essex Marshes, is supplied with rain-water, which is collected on the roofs of the various buildings in the Fort, and before entering two underground tanks of cement, passes through a rough filter of charcoal and gravel. Both tanks communicate, but have separate filters, the water passing upwards through these filters. Each tank has a separate collecting ground. The filters were built in 1873, previous to which date there was no means of purifying the tank water. The old tank, containing 24,000 gallons, is 280 feet, and the new tank, containing 22,437 gallons, is 390 feet from high-water mark. The tanks requiring cleaning and repair, spring water was obtained for the use of the troops from the Tilbury Railway Station from 13th December 1873, to 16th October 1874, for drinking and cooking purposes, when the rain-water collected in the tanks of the Fort was again brought into use.

The railway water is spring-water, and is pumped up from an ordinary well at Low Street, a station on the Tilbury and Southend railway. In a straight line from the Thames it is about 1½ miles inland, and at the foot of some low-lying hills.

The railway *employés*, and a small body of coast-guard men, stationed in a vessel lying on a mudbank of the Thames, just outside Tilbury Fort, are supplied with this water.

Tilbury Fort has long been regarded as unhealthy, and the troops have of late years been relieved every six months. The 7th Battery, 7th Brigade, Royal Artillery, the average strength of which was 90, arrived at the Fort on 18th December 1873, and were relieved 10th July 1874. The men were supplied with water, for drinking and culinary purposes, from the railway station spring, and during the seven months that the battery was stationed at Tilbury Fort but one admission from ague took place, on 1st January 1874, shortly after

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the arrival of the battery. On the other hand, there were twelve admissions for ague during first six months of 1873 in another battery of the same brigade, with an average strength of 102, quartered at the fort in question; and, for the same period in 1872, there were 34 admissions for ague in the battery (average strength, 103) then stationed there.

Half a battery of the 15th Brigade, Royal Artillery, with an average strength of 53, occupied the Fort from 1st November 1874 up to the date of Surgeon-Major Faught's report (February 1875), and four men had been attacked with ague. The battery came from Gibraltar, and the men in question had never suffered previously from that disease.

The coast-guard, occupying a ship lying in the river mud just outside Tilbury fortifications, consisting of 10 men, 7 women, and 20 children, are reported to be healthy and free from ague. The men have been stationed there from one to five years. There are some 60 men, besides women and children, belonging to the Tilbury railway station, occupying houses close by, who have been there for various periods up to five years, and the station-master states that ague is very uncommon amongst his men.

Deputy Surgeon-General Bowen, in an inspection report of the barracks and hospitals in the Chatham district, dated 17th December 1875, makes the following remarks:—

"Tilbury Fort has always hitherto been remarkable for ague, but there has not been an admission for this disease from that Fort since March last, at which time the use of tank-water was discontinued; and those men who had all the appearance of what is called malarial cachexia, have become comparatively healthy and robust in appearance."

Three samples of water were procured in February 1875, and forwarded to the Chemical Laboratory, Netley, for the purpose of being chemically analyzed and microscopically examined. No. 1 was spring-water from the railway station well at Low Street, two miles from Tilbury station, and about 1½ miles in a direct line from the Thames. No. 2 sample was labelled "Rain-water, collected in underground tanks. It passed through a rough filter before entering the tanks." No. 3 sample, labelled "Rain-water from a tank in Tilbury Fort, recently analyzed at Gravesend, and was used by the troops for drinking purposes lately. The pump being out of order, the other tank was brought into use."

Dr. de Chaumont, after tabulating the results of the physical and microscopical examinations and quantitative analysis of these three samples, makes the following remarks:—"All the three waters have the albuminoid ammonia much in excess, but in Nos. 2 and 3 (the tank-water) the oxygen required for organic matter is in excess, whereas in No. 1 (the railway station water) it is in small quantity. The amount of nitric acid is largest in No. 1, shewing that oxidation of organic matter had been most active there. It is quite clear that, in Nos. 2 and 3, water had penetrated in large quantities from the surrounding ground into the tanks, and that the name of rain-water applied to them was absurd. As I understand that the fever practically ceased when the use of No. 1 water was resorted to, we may gather from the analysis that the probable poison in Nos. 2 and 3 was an *oxidisable organic substance*, but not necessarily a nitrogenous one, seeing that the albuminoid ammonia was really in greatest excess in No. 1, apparently the least harmful water. The free ammonia was also in excess in No. 1, but this is probably one of the steps in oxidation, and therefore accords with the other characters. If we may draw any conclusions at all on such a difficult and doubtful subject, they will be the following:—

"1. That some poison existed in Nos. 2 and 3 that was absent in No. 1.
"2. That the poison was probably of an organic nature, and that it was oxidisable.
"2. That fresh oxidation existed in the least harmful water.
"4. That if the same poison had at any time existed in No. 1 water, it was rendered innocuous by oxidation.
"5. That as the chemical analysis proves soakage of water from the surrounding marsh into tanks Nos. 2 and 3, the poison was, in all probability, derived from the marsh."

The microscopical examination was undertaken by Dr. J. D. Macdonald

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R.N., F.R.S., and the drawings accompanying the report were likewise finished by him. "Without laying too much stress upon the fact," says Dr. de Chaumont, "it may be noted that the only *fungoid* elements observed were quite absent from No. 1 sample of water."

"A number of sanitary services have been either executed during the year in the Chatham district, or are now in hand.

"At *Brompton Barracks* the water-closets for officers' servants have been improved; the pipes of sinks from sewers in Quarter A have been disconnected; the ventilation of stables of North Square, and the ventilation of the tailors' shop have been improved; the drainage and water supply of servants' water closets have also been improved; ventilating shafts are being provided to drains from officers' mess.

"At *Chatham Barracks* the drainage in officers' quarters has been improved, and screens have been provided to the ventilating shafts in the men's quarters.

"At the *Control Depôt* a system of main drainage into the town sewer has been provided.

"At *Brompton Barracks* additional married soldiers' quarters have been completed."

Southern District.

The Principal Medical Officer reports:—"That no local or other causes of diseases have been noted as injuriously affecting the health of the troops at the various stations of the district. An outbreak of diphtheria occurred amongst the children of the 58th Regiment and 48th Depôt in the married quarters of the Anglesea Barracks, Portsea. In the month of October and November there were 15 attacks and four deaths in the 58th Regiment, and although one officer was attacked (who recovered) the disease did not spread among the men.

"The sick list of the 52nd Regiment has been higher since its arrival here than it was at Gibraltar. Surgeon-Major Burkett attributes this to the comparatively sudden change from a warm to a cold climate at the commencement of the winter season.

"Ophthalmia, which in previous years caused many admissions in the 2nd Battalion, 15th Regiment, has now disappeared, and this is attributed by Surgeon-Major Moffitt to the good water supply in the lavatories at Gosport barracks.

"Two cases of enteric fever in the 102nd, at Parkhurst, were supposed to be attributable to one of the wells having been contaminated by sewage having leaked in from one of the drains. The well was closed, cleaned out, and disinfected, and the drain attended to; the room was vacated, thoroughly cleaned, fumigated, and afterwards lime-washed, and no more cases occurred.

"Numerous sanitary improvements have been made during the year.

"The drainage of the barracks, &c., in Southsea in connection with the town system, is in process of completion.

"The Infectious Hospital, situated at the north end of the Station Hospital, Portsea, has been completed.

"The ventilation of buildings in general is sufficient, and the facilities for ablution ample; the means of cooking good; the diet remains unchanged; and, while the cubic space has not been increased, there has been no overcrowding.

"The water supply has been generally good and sufficient. At Golden Hill Fort, Isle of Wight, the well became contaminated with sewage in September last, and since then the water has been unfit for drinking purposes; water has in consequence to be carried from a distance, but the subject of a new water-supply for this fort is under consideration.

"The sickness and mortality of the troops at Portsmouth, as well as the amount of invaliding, is considerably increased by the circumstance that Portsmouth is generally garrisoned by regiments recently arrived from India and other foreign stations; but, on the whole, a review of the past year is satisfactory, so far as the health of the troops is concerned, and compares favourably with former years."

Woolwich.

United Kingdo

Deputy Surgeon-General Gordon, reports that the general health of the troops has been on the whole good. Puerperal fever having appeared in the female hospital, the building was in consequence closed for the last four months of the year as far as the obstetric portion was concerned. The Medical Officer in charge reported that the disease was prevalent among the civil population.

An epidemic of diphtheria prevailed among the children, confined principally to the occupants of the Royal Artillery cottages on Woolwich Common. It commenced about the middle of November, and had not terminated at the end of the year. A number of cases of scarlet fever were also admitted at the same time, and from the same locality. It was recommended that the cottages should be removed, and married quarters built in their stead. These cottages are about 80 years old, and were not constructed in accordance with present sanitary requirements.

Slate urinals and new latrines have been erected for the use of the troops in the Red Barracks (formerly Royal Marine Infirmary). The latrines are on Jennings' principle.

Two new blocks of married quarters are in course of erection close to the Cardwell Cottages ; each block to contain 16 quarters of two rooms each.

Netley.

Surgeon-General Fraser, C.B., reports :—" A comparison with the return for the preceding year will shew a remarkable correspondence, particularly in the number of deaths, viz.—47 in 1873, and 48 in 1874, and, to a considerable extent, in the numbers admitted and variously discharged or disposed of.

INVALIDS.

	Remaining, 1st Jan.	Since Joined.	Died.	Discharged.			Remaining 31st Dec., 1874.
				As Invalids.	To Corps or Depôts.	To Lunatic Hospital.	
From Foreign Stations	93	2,175	46	901	1,245	9	67
From Home Stations	1	..	..	1	..	..	..
Men sent for change and further treatment	4	55	2	3	50	..	4

" In addition to the above number (2,175) of invalids, 1,116 joined their Depôts direct from Portsmouth during the invaliding season, according to a return received from the Assistant Quartermaster-General at Portsmouth.

" Special representation of the want of accommodation had been made by my predecessor, and intimation was received that steps would be taken to diminish this inconvenience ; but 2,281 invalids have been notified to arrive from India from the 30th March to 30th April 1875. From the short interval of 5 days between the arrival of the two first and two last troop-ships, the same pressure will be repeated, and can only be prevented by increasing the interval, if practicable, to 10 or 15 days, so as to afford suitable time for the discharge of men and preparation of documents.

" No material change has taken place in the sanitary condition of the hospital during the year.

" The water supply is not in the most satisfactory condition, from the occasional deposit of mud or sand, notwithstanding the use of a filter in the cook-house. An additional shaft has been bored in the south wing artesian well, but without success. The whole subject of water supply and its filtration is now occupying the consideration of the Royal Engineer Department.

United Kingdom.

"The drainage of the hospital cannot be considered satisfactory until disconnection has been effected between the sinks, ablution and bath-room, and the main drain. I understand that the War Department has sanctioned this being carried out in the north wing, and it will probably be effected the following year in the south wing.

"A considerable number of the enamelled baths have been replaced by tin baths as being more serviceable.

"The conversion of the mortuary into a Female Hospital has been effected and it will probably be occupied in April.

"The erection of an infection ward has been recommended.

"The following are the leading sanitary improvements effected during the year:—

"1. Increased ventilation to main sewer. 2. Improvement of surface drains and catchpits in yard in rear of hospital. 3. Improvement of surface drains in road in rear of hospital 4. Fixing filter in north wing cook-house. 5. Fixing filter in Lunatic Hospital. 6. Fixing Major Crease's filters as experiments at officers' mess and married soldiers' quarters.

"I have duly submitted for approval the following sanitary recommendations:—

1. A separate hospital for officers. 2. A separate and detached ward or wards for infectious diseases and itch. 3. The disconnection by air (irrespective of trap) of the hospital ablution and bath-rooms, with sinks, from the main drain, and the ventilation of the water-closets below the syphon. 4. The improved filtration of the hospital water supply, with some other minor recommendations."

Western District.

A full report having appeared in the volume for 1873 as to the requirements for improving the sanitary condition of the various stations in this Command, it is considered unnecessary to publish one on the present occasion. Several improvements, of a minor character chiefly, have been effected during the year under report.

Northern District.

Deputy Surgeon-General Ewing reports that the health of the troops has been tolerably good, but not so good as in the previous year.

Though a great deal has been done in the way of sanitary improvements during the year, still important defects remain to be remedied.

At Ashton-under-Lyne, Bradford, Bury, Burnley, and Preston, the system of conservancy is most objectionable.

Northampton Hospital is without a dead-house, and the accommodation for the sick is quite inadequate.

At Salford (Manchester) an isolation ward still remains to be built.

IRELAND.

Surgeon-General McIllree reports:—The Returns from the Principal Medical Officers of Districts are satisfactory, in shewing that the health of the troops serving in Ireland during 1874 has been good.

Cases of enteric and scarlet fever (the latter very prevalent during the spring of the year among the civil population) have been less numerous among the troops than during 1873.

The barrack and hospital accommodation has, with a few exceptions, been reported sufficient, and much has been done to improve the sanitary condition of the various stations.

The means of amusement and recreation provided for the troops have been increased in several stations.

United Kingdom.

The water supply for the use of the troops in Ireland is becoming a question of serious importance. In no less than 16 stations the supply has been pronounced unfit for drinking purposes, involving much public expense, as well as difficulty at times in procuring a pure supply.

Since last Report, the hospital at Portobello Barrack has been re-appropriated for the reception of cases of infectious disease amongst the troops and their families in Dublin.

Cork District.

Deputy Surgeon-General Murphy states:—At several stations in the district the barracks were overcrowded, particularly during the winter months, when tents were not available, and the cubic space sanctioned for permanent barracks, has not, as a rule, been obtainable.

An outbreak of diarrhœa and enteric fever in the Military Prison at Limerick was traced to the contamination of the water supply by sewage matter.

In Cork Barracks also, attention was directed to the water supply by the occurrence of some cases of enteric fever among officers living in the barracks, one of which proved fatal. A Board was assembled, and a careful and searching inquiry instituted. The water supplied to the barracks, which is derived from wells, from rain-water tanks, and from the City Waterworks, was subjected to analysis, and that from the wells was found to be impure. It was not, however, ascertained that the water from this source had been used for drinking or cooking purposes, and the cause of the attacks in the officers remains uncertain. No cases of enteric fever or diarrhœa occurred among the soldiers or their families. There are no cess-pits in the Cork Barracks. The latrines are on MacFarlane's and Jennings' water-flushing system.

The water supply to the barracks at Tralee from wells in the barrack still continues impure.

Sanitary Improvements:—

Cork and Cork Harbour.—A new gymnasium has been completed at Cork.

Spike Island.—The drainage of the north side of the island has been improved. The cess-pit latrines are being converted into earth closets; the casemate barracks are being ventilated by large openings at the ends of the rooms, and a new oven has been fitted up in the cook-house.

Haulbowline Island.—The cess-pit latrines are being converted into earth closets.

Carlisle Fort.—The main sewage of the fort has been re-constructed with an outlet beyond low-water mark.

Queenstown Hospital.—The back wall of the building has been cemented to prevent damp.

Ballincollig.—Earth-closets have been finished, and the foul cess-pits abolished—a very great and much required improvement. A separate contagious disease hospital has been finished.

Buttevant.—The earth-closet system of latrines has been introduced, and a badly constructed earth-closet latrine re-modelled.

Cahir.—A water-closet to the hospital is in course of construction. Ablution and bath rooms completed.

Clonmel.—A foul bedding and clothing store has been provided at the hospital.

Fethard.—The guard-room cells have been improved.

Fermoy New Barracks.—Earth-closet latrines completed.

Limerick.—Filters to water tanks completed.

Templemore.—A new gymnasium in progress.

Gymnasia.—Gymnasia are now open at Cork, Fermoy and Limerick, and the Reports of the Medical Officers testify to the very great improvement in the physique of the soldiers under training; no accidents of a serious nature have occurred.

Curragh.

United Kingdom.

Deputy Surgeon-General Grant reports that the health of troops in the Curragh District has been very good during the past year. Some complaints have been made in reference to the new concrete huts. The construction of the roof ventilators and eaves admits of the entrance of wind and rain, into the rooms; and the huts have also been reported as being otherwise cold and damp. These objections will, it is anticipated, be remedied in existing huts, and provided against in future erections.

At the early part of the year a number of cases of enteric fever occurred amongst the 6th Dragoons at Newbridge, attributed to the insanitary state of old unused drains as well as to defects in water-closet drains in the officers' quarters. The barracks were vacated, and the troops removed to Curragh Camp where the disease soon disappeared. After this the barrack drainage at Newbridge was thoroughly overhauled by the Engineer Department, and various recommendations were made by the Medical and Engineer Departments, as well as by the Sanitary Committee. As a result the old drains were obliterated, existing drains cleansed, and in some instances reconstructed as well as ventilated. (A report of this outbreak was forwarded to the Army Medical Department at the time, and has been published in the last volume of reports.)

Section II.

On the Amount of Invaliding.

The number of men invalided in the whole force in the United Kingdom and in each arm separately, is shewn in the following Table:—

		Troops generally.	Household Cavalry.	Dragoon Guards and Dragoons.	Royal Artillery (including the Depôt Brigade.)	Foot Guards.	Infantry Regiments.	Depôts.	Royal Engineers.
Strength		93,198	1,203	10,285	15,290	5,501	35,326	10,328	3,615
1874..	Number discharged as Invalids ..	2,764	11	356	490	107	964	722	73
	Ratio per 1,000 ..	29·66	9·13	34·61	32·05	19·44	27·29	69·91	20·19
1864–73.	Ratio per 1,000	27·52	16·02	27 94	30·28	24·74	25·95	37·60	..

Compared with the preceding year, the rate of invaliding of the whole force is higher by 4·40 per 1,000 men, the increase on the rate of 1873, extends to every arm, excepting Household Cavalry, and Foot Guards; in the first named there is a fractional decrease, in the last a decrease of 6·20 per 1,000 men. The increase on the rate of the preceding year, is highest in Depôts 11·47; in Dragoons it amounts to 6·61; in Royal Artillery to 1·24, and in Infantry to 3 02. The invaliding rates of all arms in the present year also exceed the average, with the exceptions of those of Household Cavalry, and Foot Guards.

Section III.

On the Number constantly in Hospital of the Troops serving in the United Kingdom.

United Kingdom.

		Troops generally.	Household Cavalry.	Cavalry of the Line.	Royal Artillery.	Foot Guards.	Infantry Regiments.	Depôt Brigade Royal Artillery.	Depôts.
Mean daily sick per 1,000 of the strength	1874 ..	38·59	29·09	40·25	37·65	40·36	33·54	61·34	38·92
	1864–73	41·44	38·02	39·16	43·74	45·61	36·21	47·72	*42·30
		Days.	Days.	Days.	Days.	Days.	Days.	Days.	
Average sick time to each Man in the course of the Year	1874 ..	14·09	10·62	14·36	13·74	14·73	12·24	22·39	14·21
	1864–73	15·12	11·02	14·29	15·96	16·65	13·22	17·42	*15·44
Average duration of the Cases	1874 ..	16·76	16·74	17·90	17·00	19·66	16·69	17·47	15·32
	1864–73	17·90	17·45	18·52	17·80	22·51	18·18	17·00	*17·01

* 1864–72 only.

For all troops together, the mean daily sick rate is 1·12 per 1,000 men in excess of that of 1873; the increased rate extends to all arms excepting Household Cavalry, Royal Artillery and Foot Guards, which shew materially reduced rates; in Infantry, the excess on the rate of the preceding year amounts to 1·56 per 1,000. The average sick time to each soldier was greater than in 1873, for all troops together, but the increase takes place in two arms only, Infantry, and Depôt Brigade Royal Artillery; in each of the remaining arms there is a lower rate. The average duration of cases of sickness is lower than in 1873, for all arms together, and for each arm separately; in Infantry, the reduction amounts to 1·63 days for each case of sickness, this shews that (although there were more admissions into hospital) either that a great deal of the sickness in the force serving at home was of an unimportant kind in 1874, or that the sick were sooner restored to health than in the preceding year.

Section IV.

On the Influence of Age on the Mortality of Troops serving in the United Kingdom.

The mortality at the different ages arranged in quinquennial periods in the several arms of the service is shewn in the following Table:—

United Kingdom.

Corps.	Annual Ratio of Deaths per 1,000 Living, at the following Ages:—					
	Under 20.	20 and under 25.	25 and under 30.	30 and under 35.	35 and under 40.	40 and upwards.
Household Cavalry	11·49	7·77	12·46	14·28	..	..
Cavalry of the Line	4·09	4·38	8·79	9·64	13·70	29·42
Royal Artillery	3·34	5·43	3·13	13·94	22·13	23·42
Foot Guards	..	7·60	4·41	6·95	20·20	17·34
Infantry Regiments	3·33	4·31	4·77	13·11	14·82	21·65
Depôt Brigade Royal Artillery, Depôts and Brigade Depôts..	4·14	7·34	9·56	19·03	25·38	15·96
Ditto, ditto, ditto, 1863–72	4·19	7·27	10·51	17·93	22·68	25·75
Average of preceding, exclusive of all Depôts	3·30	4·88	5·31	12·36	16·12	21·77
Ditto, ditto, 1864–73	3·02	5·39	6·55	12·28	18·05	23·53
Civil Male Population { England and Wales ..	7·41	8·42	9·21	10·23	11·63	13·55
Civil Male Population { Healthy Districts ..	5·83	7·30	7·93	8·36	9·00	9·86

The statistics of this Table agree with the corresponding ones of preceding years, in shewing a lower death rate amongst young soldiers, than that of persons of the same age in civil life, a result accounted for by the fact that this class of soldiers contains only selected lives, and that some of the deaths of the class occur after the men in it have been invalided, and are in consequence shewn amongst those of the civil population. On the other hand, the death rates of soldiers of the ages 30 and under 35, and 35 and under 40, exceed those of persons of the same age in civil life, and this occurs in spite of the extensive invaliding among soldiers of those ages; the influence of service in unhealthy countries is apparent in this result.

Section V.

On the Recruiting of the Army.

The total number of Recruits examined in 1874, as shewn by the Annual Returns, was 30,557; of these 23,561 were examined by Army Medical Officers, and 6,996 by Civil Medical Practitioners.

The total number of rejections amounted to 8,471, and of these 7,927 were rejected on primary, and 544 on secondary inspection. The proportion rejected per 1,000 examined is, therefore, 277·22, or 26·42 below that of 1873.

The following Table shews the numbers inspected and rejected, and the ratios of rejections per 1,000 examined:—

United Kingdom.

	Number of Recruits Primarily Inspected.	Number Rejected.			Ratio of Rejections per 1,000 Examined.	
		On Primary Inspection.	On Secondary Inspection.	Total.	Primary Inspections.	Primary and Secondary Inspections.
By Army Medical Officers	23,561	6,771	544	8,471	287·38	277·22
By Civil Medical Practitioners ..	6,996	1,156			165·24	
Total	30,557	7,927	544	8,471	259·42	277·22

The proportions rejected on both primary and secondary examination are considerably below those of 1873.

The native countries of the recruits, the ratios of the rejections, and the proportion per 1,000, furnished by each country, are given in the following Table :—

Native Countries of Recruits.	Examined by Army Medical Officers.		Examined By Civil Medical Practitioners.		Rejected on Secondary Inspection.	Total.		Proportion Rejected per 1,000 Inspected.	Proportion per 1,000 of Recruits furnished by each Country.
	Inspected.	Rejected.	Inspected.	Rejected.		Primarily Inspected.	Rejected at Primary and Secondary Inspections.		
England and Wales... ...	16,022	4,646	5,693	992	453	21,715	6,091	280·50	710·6
Scotland	2,390	640	351	44	41	2,741	725	264·50	89·7
Ireland	4,942	1,439	925	119	46	5,867	1,604	273·40	192·
British Colonies and Foreign Countries... ...	207	46	27	1	4	234	51	217·95	7·7
Total ...	23,561	6,771	6,996	1,156	544	30,557	8,471	277·22	1000·0

This Table shews, when compared with the results of 1873, a higher ratio of rejections for recruits born in Ireland, and a lower ratio for those of the other countries; a decrease in the proportions per 1,000 of recruits furnished by England and Wales and foreign countries (including British Colonies); and an increase in those furnished by Scotland and Ireland.

The following Table shews the numbers of recruits inspected for each arm of the Service, the number rejected as unfit, the ratios of rejections, and the proportions inspected for each arm of the Service :—

United Kingdom.

	Examined by Army Medical Officers.		Examined by Civil Medical Practitioners.		Total Primary Inspections.		Rejected on Secondary Inspection.	Total Rejections at Primary and Secondary Inspections.	Ratio of Rejections per 1,000 Recruits Inspected.	Proportion per 1,000 of Recruits inspected for each Arm.
	Inspected.	Rejected.	Inspected.	Rejected.	Inspected.	Rejected.				
Enlisted for— Household Cavalry	190	80	...	...	190	82	2	80	431·58	6·3
Cavalry of the Line ...	3,218	797	318	42	3,536	839	21	860	243·21	115 7
Royal Artillery and Royal Engineers	5,790	1,685	1,277	168	7,067	1,853	116	1,969	278·62	231·3
Foot Guards	360	108	502	131	862	239	144	383	444·32	28·2
Infantry	10,032	2,876	4,652	736	14,684	3,612	220	3,832	260·96	480·5
General Service	3,971	1,225	247	79	,218	1,304	41	1,345	318·87	138·0
Total	23,561	6,77	6,996	1,156	30,557	7,927	544	8,471	277·22	1000·0

The proportions of rejections for the Household Cavalry and General Service are much, and for the Royal Artillery and Royal Engineers a little, lower than for 1873, while those for the Cavalry and Foot Guards are considerably, and for the Infantry Regiments slightly, in excess of the proportions rejected for those arms during that year.

RETURN shewing the Number of Recruits Rejected during the Year 1874, with the Causes arranged in Classes, and the Ratio per 1,000 in each Class.

ass.	Causes of Rejection, in Classes.	Primary Inspections.						Numbers rejected on Secondary Inspection.	Total rejected on both Primary and Secondary Inspection.	
		Examined by Army Medical Officers.		Examined by Civil Medical Practitioners.		Total.				
		23,561		6,996		30,557			30,557	
		Number Rejected.	Ratio per 1,000.	Number Rejected.	Ratio per 1,000.	Number Rejected.	Ratio per 1,000.		Number Rejected.	Ratio per 1000.
1	Syphilis	389	16·51	70	10·00	459	15·02	22	481	15·74
2	Scrofula..	131	5·56	25	3·57	156	5·11	6	162	5·30
3	Phthisis	133	5·64	34	4·86	167	5·46	5	172	5·63
4	Impaired Constitution..	257	10·91	28	4·00	285	9·33	14	299	9·78
5	Muscular Tenuity and Debility	936	39·73	71	10·15	1,007	32·95	118	1,125	36·82
6	Other General Diseases	144	6·11	15	2·14	159	5·20	8	147	5·46
7	Diseases of Nervous System	31	1·32	2	·29	33	1·08	4	37	1·21
8	Weakness of Intellect	26	1·10	5	·71	31	1·01	1	32	1·05
9	Diseases of Eyes and Eyelids..	1,250	53·05	196	28·02	1,446	47·32	69	1,515	49·58
10	Diseases of Nose and Mouth	19	·81	2	·29	21	·69	2	23	·75
11	Disease of Ears..	8	·34	..	..	8	·26	2	10	·33
12	Deafness	59	2·50	1	·14	60	1·96	2	62	2·03
13	Impediment of Speech	31	1·32	3	·43	34	1·11	3	37	1·21
14	Disease of Heart	660	28·01	101	14·44	761	24·90	52	813	26·61
15	Disease of Arteries (Aneurism)	9	·38	1	·14	10	·33	6	16	·52
16	Disease of Veins (Varix)	453	19·23	111	15·87	564	18·46	26	590	19·31
17	Disease of Lungs (except Phthisis)	31	1·32	9	1·29	40	1·31	6	46	1·51
18	Loss or Decay of many Teeth	146	6·20	23	3·29	169	5·53	10	179	5·86
19	Hernia	230	9·76	86	12·29	316	10·34	36	352	11·52
20	Laxity of Abdominal Rings	84	3·56	19	2·72	103	3·37	8	111	3·63

United Kingdom.

United Kingdom.

RETURN—*continued.*

Class.	Causes of Rejection, in Classes.	Primary Inspections.						Numbers rejected on Secondary Inspection.	Total rejected on both Primary and Secondary Inspection.	
		Examined by Army Medical Officers.		Examined by Civil Medical Practitioners.		Total.				
		23,561		6,996		30,557.			30,557	
		Number Rejected.	Ratio per 1,000.	Number Rejected.	Ratio per 1,000.	Number Rejected.	Ratio per 1,000.		Number Rejected.	Ratio per 1,000.
21	Hæmorrhoids	62	2·63	9	1·29	71	2·32	..	71	2·32
22	Diseases of the Urinary Organs	16	·68	1	·14	17	·56	..	17	·56
23	Varicocele	257	10·91	95	13·58	352	11·52	19	371	12·14
24	Other Diseases of the Genital Organs (not Syphilitic)	49	2·08	5	·71	54	1·77	3	57	1·85
25	Defects of Upper Extremities, from Fracture, Contraction, Luxation, &c.	212	9·00	19	2·72	231	7·56	18	249	8·15
26	Defects of Lower Extremities, from Fracture, Contraction, Luxation, &c.	242	10·27	56	8·00	298	9·75	31	324	10·77
27	Flat Feet	152	6·45	36	5·15	188	6·15	16	204	6·68
28	Diseases of Joints	49	2·08	2	·29	51	1·67	3	54	1·77
29	Other Affections of Bones and Muscles	70	2·97	3	·43	73	2·39	12	85	2·78
30	Ulcers, Wounds, and Cicatrices	105	4·46	16	2·29	121	3·96	10	131	4·29
31	Other Affections of the Cutaneous System	117	4·97	24	3·43	141	4·61	3	144	4·71
32	Malformation of Ears	2	·08	..	..	2	·07	..	2	·07
33	„ Nose and Mouth	1	·04	1	·14	2	·07	..	2	·07
34	„ Chest and Spine	321	13·75	80	11·43	404	13·22	22	426	13·94
35	„ Urinary or Genital Organs	16	·68	1	·14	17	·57	1	18	·59
36	Marks of Punishment, or of letter D or B C.	11	·47	2	·29	13	·13	3	16	·52
37	Marks of Cupping, Blistering, &c.	59	2·50	4	·57	63	2·06	3	66	2·16
	Total Rejected	6,771	287·38	1,156	165·21	7,927	259·42	544	8,471	277·22

United Kingdom.

The principal causes of rejection were syphilis, impaired constitution, muscular tenuity, diseases of the eye (including defective vision), of the heart and of the veins, hernia, varicocele, defects of the upper and lower extremities, and malformation of the chest and spine. Of these the proportions rejected for syphilis, muscular tenuity, diseases of the eye and of the heart, hernia, varicocele, defects of the upper and lower extremities, and malformation of the chest and spine, are lower, while those for impaired constitution and diseases of the veins, are higher than in 1873.

Table shewing the ages of all recruits, as given at their primary inspection, and the proportion per 1,000 at each age :—

Ages.	Numbers Inspected.			Proportion in 10,000.		
	By Army Medical Officers.	By Civil Medical Practitioners.	Total.	Examined by Army Medical Officers.	Examined by Civil Medical Practitioners.	Total.
Boys under 17	623	61	684	265	87	224
From 17 to 18	992	66	1,058	421	95	346
„ 18 to 19	6,224	2,050	8,274	2,642	2,930	2,708
„ 19 to 20	5,377	1,742	7,119	2,282	2,490	2,330
„ 20 to 21	3,447	1,002	4,449	1,463	1,432	1,456
„ 21 to 22	2,312	699	3,011	981	999	985
„ 22 to 23	1,769	535	2,304	751	765	754
„ 23 to 24	1,405	402	1,807	596	575	591
„ 24 to 25	1,166	392	1,558	495	560	510
Upwards of 25	246	47	293	104	67	96
Total	23,561	6,996	30,557	10,000	10,000	10,000

The proportion of recruits under 19 years of age is lower, between 21 and 22 exactly the same, while that at each of the other ages it is higher than in 1873. The recruits above 20 years of age were in excess (by 179 per 10,000) of those of the preceding year; the increase being most marked between the ages of 23 and 24, and 24 and 25.

Table shewing the heights of recruits and the proportion per 10,000 at each height :—

United Kingdom.

Heights.	Number Inspected.			Proportion in 10,000		
	By Army Medical Officers.	By Civil Medical Practitioners.	Total.	Examined by Army Medical Officers.	Examined by Civil Medical Practitioners.	Total.
Ft. In. Ft. In.						
Under 5 3 ..	586	58	644	249	83	211
5 3 to 5 4 ..	144	13	157	61	19	52
5 4 ,, 5 5 ..	3,491	740	4,231	1,482	1,058	1,385
5 5 ,, 5 6 ..	6,576	1,928	8,504	2,791	2,756	2,783
5 6 ,, 5 7 ..	4,819	1,651	6,470	2,045	2,360	2,117
5 7 ,, 5 8 ..	3,906	1,207	5,113	1,658	1,725	1,673
5 8 ,, 5 9 ..	2,052	712	2,764	871	1,018	905
5 9 ,, 5 10 ..	1,107	425	1,532	470	607	501
5 10 ,, 5 11 ..	510	175	685	216	250	224
5 11 ,, 6 0 ..	218	64	282	93	91	92
6 0 and upwards ..	152	23	175	64	33	57
Total	23,561	6,996	30,557	10,000	10,000	10,000

This Table, when compared with the corresponding one for 1873, shews an increase of 30 per 10,000 in the proportion of recruits under 5 ft. 6 in. The increase occurs entirely in one group—viz., between 5 ft. 4 in. and 5 ft. 5 in., the proportions in the other groups being much lower. At the higher standard—viz., above 5 ft. 6 in.—there is an increase at the following heights:—between 5 ft. 6 in. and 5 ft 7 in., 5 ft. 9 in. and 5 ft. 10 in., and 5 ft. 10 in. and 5 ft. 11 in., and a decrease at the others.

Table shewing the weights of recruits inspected by Army Medical Officers, and the proportion per 10,000 at each weight. There is no information on this head available respecting those primarily inspected by Civil Medical Practitioners, and by Army Medical Officers at many of the smaller stations.

Weights.	Numbers Weighed.	Proportion per 10,000.
lbs. lbs.		
Under 100	368	234
From 100 to 110	138	88
,, 110 to 120	1,652	1,050
,, 120 to 130	4,672	2,969
,, 130 to 140	4,532	2,880
,, 140 to 150	2,831	1,799
,, 150 to 160	1,040	661
,, 160 to 170	352	223
,, 170 and upwards	152	96
Total	15,737	10,000

On comparing this Table with the corresponding one of last year we find there is a falling off of 171 per 10,000 in the proportion of recruits weighing under, and a corresponding increase in those weighing upwards, of 130 lb.

The groups shewing decreased ratios are the three which include the lighter weights—viz., from under 100 lb. to 120 lb., and the two between 150 lb. and 170 lb.; the ratios at the other weights are higher.

United Kingdom.

The state of education among recruits primarily examined by Army Medical Officers is shewn in the following Table.—There is no information available on this head respecting those examined by Civil Medical Practitioners :—

	Number Inspected.	Unable to Read.	Able to Read only.	Able to Read and Write.
Examined by Army Medical Officers	23,561	3,743	2,878	16,940
Ratio per 1,000 examined		158·9	122·1	719·0

The proportion of recruits able to read and write is much smaller than in 1873, while there is an increase in that of those entirely uneducated and of those able to read only.

The occupations of recruits previously to enlistment, the proportion rejected and the proportion furnished by each group, are shewn in the following Table :—

Occupations of Recruits.	Number Inspected.	Rejected on Primary Inspection.	Rejected on Secondary Inspection.	Total Rejected.	Ratio per 1,000 Rejected.	Proportion per 1,000 of Recruits furnished by each group of occupations.
1. Labourers, Husbandmen, and Servants	18,917	5,077	309	5,386	284·7	619·1
2. Manufacturing Artisans (as Clothworkers, Weavers, Lace Makers, &c.)	3,558	890	95	985	276·8	116·4
3. Mechanics employed in Occupations favourable to physical development (as Carpenters, Smiths, Masons, &c.)	5,391	1,320	115	1,435	266·2	176·4
4. Shopmen and Clerks	1,770	507	19	526	297·2	57·9
5. Professional Occupations, Students, &c.	237	48		50	211·0	7·8
6. Boys	684	85		89	130·1	22·4
Total	30,557	7,927	544	8,471	277·2	1000·0

When compared with the results for 1873 a decrease is observed in the proportion of rejections in every group. Shopmen and clerks again shew the highest ratio of rejections, and boys the lowest.

Group No. 1 again furnished more than half the number of recruits, and the proportions supplied by this group and by Nos. 2, 5 and 6, are in excess of those furnished by the same groups last year.

II. ON THE HEALTH OF THE TROOPS SERVING IN THE MEDITERRANEAN.

Section I.—Sickness and Mortality.

I.—GIBRALTAR.

STATISTICAL REPORT.

Gibraltar.

THE corps stationed at Gibraltar during the year, and their periods of arrival and departure, are shewn in the subjoined Tables.

The average strength during the year was 4,666; the admissions into hospital were 2,850; and the deaths, including those of 2 invalids, were 31; the rates from these numbers are,—of admissions, 610·; and of deaths, 6·63 per 1,000 men; the former is a little in excess, and the latter is almost the same as the corresponding rate of the preceding year; both are lower than those of the average of the ten years preceding.

The following Table shews the admissions and deaths in each corps during the year:—

Corps.	Average Annual Strength.	Admitted into Hospital.	Died.				Ratio per 1,000 of Strength.	
			In Hospital.	Out of Hospital.	Of Invalids.	Total.	Admitted.	Died.
Royal Artillery	981	665	6	1	..	7	678	7·14
Royal Engineers	337	297	4	..	1	5	811	14·84
1st Battalion 4th Regiment ..	162	94	..	..	..	..	580	..
1st ,, 24th ,, ..	576	316	3	1	1	5	549	8·68
2nd ,, 23rd ,, ..	150	128	..	..	..	..	853	..
31st ,, ...	658	223	2	2	..	4	339	6·08
52nd ,, ...	506	201	2	..	..	2	397	3·95
69th ,, ...	638	457	4	..	..	4	716	6·27
81st ,, ...	492	296	1	..	..	1	602	2·03
2nd Battalion Rifle Brigade ..	70	82	...	..	..	..	1,171	..

	Years of Service in the Command.
Royal Artillery { 15th Brigade embarked for England in Oct. ..	7
Royal Artillery { 17th Brigade arrived from England in Oct. ..	..
1st Battalion 4th Foot, arrived from England in October ..	..
1st ,, 24th ,, embarked for Cape in November ..	2
2nd ,, 23rd ,, arrived from England in October ..	..
31st ,,	2
52nd ,, embarked for England in October ..	1
69th ,,	1
81st ,, embarked for India in October	4
2nd Battalion Rifle Brigade, arrived from England in Nov. ..	..

As so large a part of the garrison either arrived at, or left the Command during the year, and as a considerable part of it had also been engaged not long before on field service causing an exceptional amount of sickness, no strict comparison of the health of all the corps can be made. Of regiments which served for the whole year at Gibraltar, the 69th, quartered in the Grand Casemates, has a rate of admissions more than twice as high as that of the 31st, quartered at Windmill Hill, and Buena Vista Barracks during part of the year, and for the rest of it in the Town Range, and Wellington Front Barracks

Gibraltar.

fevers—most of them returned as simple continued fevers—caused more admissions in the 69th than any other disease.

The classes and orders of diseases, by which the sickness and mortality in the Command were caused, are shewn in the following Table:—

Orders.	Diseases.	1874. Average Strength, 4,666.						1869–73.		1874. Infantry at Home.	
		Admitted into Hospital.	Deaths.			Annual ratio per 1,000 of Strength.		Annual ratio per 1,000 of Strength.		Annual ratio per 1,000 of Strength.	
			At Gibraltar.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*										
1	Febrile Group ..	416	11	..	11	89·2	2·36	80·9	1·23	41·2	·37
2	Constitutional " ..	418	4	2	6	89·6	1·29	106·7	1·48	121·0	2·26
	II. *Local Diseases.* Diseases of the—										
1	Nervous System ..	36	1	..	1	7·7	·21	7·3	·32	11·7	·59
2	Eye	59	..	..	..	12·6	..	18·9	..	17·1	..
3	Ear	20	..	..	..	4·3	..	4·1	..	4·5	·03
4	Nose	4	..	..	..	·8	..	·6	..	·4	..
5	Circulatory System ..	50	3	..	3	10·7	·64	10·8	·96	16·2	1·24
6	Absorbent " ..	20	..	..	..	4·3	..	4·4	..	15·0	..
7	Ductless Glands ..	..	..	..	..	..	..	·2	..		..
8	Respiratory System ..	228	3	..	3	48·9	·64	42·4	·91	85·1	1·56
9	Digestive " ..	437	2	..	2	93·7	·43	79·1	·09	108·6	·65
10	Urinary " ..	212	1	..	1	45·4	·21	76·1	·32	65·1	·34
11	Generative " ..	61	..	..	..	13·1	..	15·6	..	10·6	..
12	Organs of Locomotion	14	..	..	..	3·0	..	5·7	·09	4·3	·03
13	Cellular Tissue ..	77	..	..	..	16·5	..	13·3	..	21·8	·06
14	Cutaneous System ..	224	..	..	..	48·0	..	68·8	..	93·1	..
	III. *Conditions, &c.*										
	Debility	22	..	..	..	4·7	..	4·5	..	10·6	·03
	IV. *Poisons* ..	24	1	..	1	5·1	·21	8·9	·14	2·3	..
	V. *Injuries.*										
2	Accidental	515	3	..	3	110·4	·64	90·6	·41	103·4	·68
4	Self-inflicted	..	..	..	..	..	..	·3	·27	·3	·14
6	Judicial	..	..	..	..	..	..		..	..	..
	VI. *Surgical Operations*	..	..	..	..	..	..	·2	..	·3	..
	Not known	..	..	..	..	..	..	..	..	..	·06
	No appreciable Disease	13	..	..	..	2·8	..	·5	..	·9	..
	Total	2,850	29	2	31	610·8	6·63	639·9	6·22	733·5	8·04
	Average of 10 Years 1864–73	..	..	..	..	657·7	8·18	..	..	..	..

General Diseases.—Both in the Febrile and in the Constitutional orders of this class, the proportions of admissions, and of deaths, exceed those of 1873; the greater prevalence of diseases of the former order cannot be ascribed to the presence in the garrison for a part of the year of two regiments which had taken part in the Gold Coast Expedition, as they contributed only 33 of the 416 admissions, and none of the deaths.

The admissions, and deaths, from the principal diseases of this class, are shewn in the following Table:—

Gibraltar.

General Diseases.	Admitted.	Died.	Annual ratio per 1,000. 1874. Admitted.	Annual ratio per 1,000. 1874. Died.	Annual ratio per 1,000. 1869–73. Admitted.	Annual ratio per 1,000. 1869–73. Died.
Febrile—						
Eruptive Fevers	9	..	1·9	..	3·2	·09
Continued „	303	9	64·9	1·93	64·9	1·05
Paroxysmal „	74	2	15·9	·43	8·6	·05
Influenza	14	..	3·0	..	2·2	..
Erysipelas	13	..	2·8	..	1·5	..
Other diseases of this group	3	..	·7	..	·5	·05
Total of Febrile Group.. ..	416	11	89·2	2·36	80·9	1·24
Constitutional—						
Rheumatism	226	..	48·4	..	38·9	·05
Syphilis	136	..	29·2	..	56·7	·05
Scrofula, Phthisis, &c.	34	5	7·3	1·07	8·6	1·28
Scurvy and Purpura	..	..	..	..	·2	..
Anæmia	15	..	3·2	..	1·7	..
Other diseases of this group	7	1	1·5	·21	·6	·09
Total of Constitutional Group ..	418	6	89·6	1·28	106·7	1·47

Eruptive Fevers, were a little more prevalent than in the preceding year; they caused no deaths. Two admissions for small-pox (one in the Royal Engineers, and one in the 31st Regiment), one for measles, and six for scarlet fever, were those due to eruptive fevers in the year.

Continued Fevers, though somewhat less prevalent, were proportionately more than twice as fatal as in 1873. One admission from *typhus fever* is returned by the 17th Brigade of Royal Artillery; no remarks respecting it occur in the report of the medical officer.

Enteric Fever, caused not quite a third more admissions than in 1873; rather more than half of the cases returned under this head were fatal, from which it is surmised that cases of the disease may have been returned under other heads. The admissions for enteric fever, occurred in seven different corps. The admissions for *Simple Continued Fevers*, are in a slightly higher rate than in the preceding year; three of the attacks proved fatal, two of them in the same month—August—were in men of the Royal Engineers, and one in September, in a man of the 52nd Foot. No record is given of the *post-mortem* appearances in any of the three instances.

Paroxysmal Fevers.—The rate of admissions for fevers of this nature is very much higher than that of 1873, and contrary to what would have seemed likely, the two regiments in the garrison, which had served in the then recent Gold Coast Expedition, contributed very little to this result; paroxysmal fevers are returned disproportionately by the Royal Artillery. Writing on the subject of *ague*, the medical officer of that corps says:—"There were a good many "cases for Gibraltar, but the greater part of them had suffered previously, or "contracted the disease at Sheerness." *Remittent Fever.*—Of 49 admissions, 29 are returned by the 15th Brigade of Royal Artillery; a consideration of the following remarks, copied from the report of the medical officer, raises the suspicion that the disease referred to was enteric fever. "There were "several admissions from this disease, principally from barracks situated "along the Line Wall, which were exceptionally unhealthy this year, as nearly "all the bad cases were admitted from them; most of the cases were of a protracted nature, being followed by rheumatism, sciatica and lumbago, orchitis, "and in one case, pericarditis. During the progress of the fever, the lungs "almost invariably became involved, sometimes with bronchitis, but more "frequently with pneumonia. The alimentary canal was very much deranged.

"constipation and diarrhœa alternating. There was usually great depression *Gibraltar.* "of spirits, nervous irritability, restless nights, and profuse perspirations." One man died of this fever; a full account of the symptoms of the illness (which reads like a typical case of enteric fever) is given; diarrhœa, gurgling in the right iliac fossa, and the passing of black stools, are noted as being observed on the 20th day after admission. After death, the following appearances were noted at the examination of the body:—"The lower portion of ileum was one "mass of ulceration, some of the ulcers being isolated, others diffused, and perforation had occurred in no less than three places." Another fatal case, returned as remittent fever, occurred in the 81st Foot, but no details of it are given; 5 admissions in the 2nd Battalion 24th Foot, and 8 in the 31st Foot, were due to remittent fever.

Rheumatism.—The prevalence of this disease was greater than in 1873, in which again it was in excess of the preceding year; it also exceeds by nearly one-fourth that of the average of 5 years. The reports of medical officers, referring to the subject of rheumatism, shew that in many instances it was a sequel of "fever." The medical officer, 15th Brigade Royal Artillery, writes: "Chronic Rheumatism.—There were a good many admissions from "this disease, due in some cases to exposure, and in others as a sequence of "'Rock Fever.'" The medical officer of the Royal Engineers writes: "Rheumatism has been still more prevalent than fevers, 67 cases having "been admitted; as has already been stated, this is generally a sequence of "protracted fever." Further on he notes that one man "died from— "(*a*) rheumatism, (*b*) febris C. C.," and that "the rheumatism for which he "was admitted had followed a protracted attack of fever."

Syphilis.—The proportional prevalence of this disease was fractionally less than that of the preceding year, and very much less than that of the average prevalence.

Scrofula, Phthisis, &c.—The rate of admissions for diseases in this group, and that of the deaths consequent on attacks, differ only fractionally from the rates of the preceding year; both are a little lower than the average.

Anœmia.—The rate of admissions is a little higher than that of 1873, and is much higher than that of the average, but the total number of admissions returned is unimportant.

LOCAL DISEASES.—*Diseases of the Nervous System.*—The rate of admissions is nearly twice as high as in the preceding year, but it is about the same as the average; the increase has taken place in one disease of the group—neuralgia,—no doubt this occurs in connection with the prevalence of fever.

Diseases of the Eye, were less prevalent than in 1873; with the exception of 9, all the admissions were from conjunctivitis; the 69th Foot is the only corps which returns a disproportionate number of admissions from this disease, but the number (17) is only relatively large.

Diseases of the Circulatory System, were in average prevalence, and proportionately, a little less prevalent than in the preceding year.

Diseases of the Respiratory System.—The rate of admissions is almost the same as that of 1873, but the proportion of deaths is much lower.

Diseases of the Digestive System.—Both the proportion of admissions, and that of deaths, exceeds the corresponding one of the previous year, this result is owing to the admissions for diarrhœa being nearly three times more numerous; whether this was connected with the increased prevalence of enteric fever, is a matter of speculation; the admissions for diarrhœa, in the newly-arrived 17th Brigade of Royal Artillery, greatly exceeded those of any corps in the garrison.

Conditions, &c.—Debility. The admissions on account of this affection are in a much higher rate than in 1873.

POISONS.—The rate of admissions on account of diseases in this class, which are substantially those of the severer illnesses due to intemperance, is little more than one-half of that of the preceding year; 18 of the 20 admissions were of men of the Royal Engineers; two admissions in this class were due to lead poisoning, both were men of the Royal Engineers. The cases are not alluded to in the report from that corps.

INJURIES.—Whilst the proportion of admissions for injuries exceeds that of the preceding year, that of deaths following them is lower; in both there is a considerable increase on the average; one accidental death was by drowning, one followed concussion of the brain, and one was from a fracture of the skull.

SANITARY REPORT.

Gibraltar. Surgeon-General Balfour reports that during the year no important change has been made in the barrack accommodation. "It is still under the amount required for the present strength of the garrison, and there has consequently been a necessity for putting more men in the rooms than authorized by regulation. To avoid the evil results of overcrowding in the summer months a proportion of the men were placed under canvas. No injurious consequences have been traced to this or to the comparative overcrowding in the cold season."

"*Stone Floors.*—In several of the barracks the flooring is of stone, and some of the medical officers have expressed a wish to have them boarded over as being uncomfortable in winter, and likely to be injurious to health. But it appears to me that during the warm weather, constituting a greater period of the year, they must be cooler and more pleasant than wood, and as none of the medical officers have been able to trace any case of disease to this cause, I have made no recommendation on the subject."

"*Ventilation.*—On the whole, the means of ventilation in the barracks are sufficient and satisfactory, with the following exceptions: In the Royal Artillery Barracks at the Moorish Castle and the lower rooms in No. 3 Hargrave's Barracks, occupied by the Royal Engineers, there are no upcast shafts; and at Buena Vista, the defensible barracks, the old huts, and the canteen, are still imperfectly ventilated. The ventilation of the barracks at Buena Vista has been provided for in the estimates 1875-6. The Royal Engineers state that the huts and canteen will not stand the necessary alteration, but it is greatly to be desired that some means of additional ventilation should be provided."

"*Warming.*—The Medical Officer of the Royal Engineers has called attention to the want of grates in all the barracks occupied by that corps, except that at Europa Pass, and points out that the men coming in wet from the public works have no means of drying their clothes."

"A fire in the barrack-room could only be required for a short time in winter, and the want could be met, as indeed it had been so far as temperature is concerned, by the issue of an additional blanket; but I think it would be very beneficial if some means could be devised for drying the men's clothes when they come in wet. It might perhaps be possible to have a drying closet put up in connection with the kitchen-range, or, if not, in some other part of the barracks with an issue of fuel for it on wet days only. The canteen at Windmill Hill has no fire-place. Considering the exposed situation and the damp which attends levanters it is very desirable that one should be erected."

"*Ablution.*—The means of ablution are defective in the South Barracks, and at the Wellington Front, and at the barracks at Europa Flats, and the Brewery Barracks. At Catalan Bay there is no ablution room, the erection of a shed or small hut for this purpose is much required."

"*Ash-pits.*—There are open ash-pits at the Town Range, Wellington Front, Royal Artillery Quarters, and Married Quarters, Windmill Hill. As I am of opinion these may prove insanitary in the warm weather, I have recommended the substitution of closed iron dust-bins for them."

"*Water Supply.*—The water supply has been sufficient on the whole, and the quality of water satisfactory. It was necessary to economise water as far as practicable in the South District, and this led to sea water being used at Buena Vista and Europa for washing the floors. As a natural consequence they were always damp. I called attention to this at my inspection and it was discontinued. Works are now in progress for the supply of North Front water by pipes to these barracks."

"*Clothing.*—The clothing of the troops is sufficient and suitable, but it is most desirable that the Royal Engineers should have light summer clothing, as worn by all the other troops in this garrison."

"*Married Quarters.*—The married quarters occupied by the Royal Engineers and 31st Regiment in Danino's Buildings are most objectionable. They consist of two rows of houses, the windows of the front row overlooking the town, and the doors opening into a narrow court in which are washing-house, dust-bins, and latrines; the rooms in the back row open into the same court, while their back windows look into a yard in which is a large mule

Gibraltar.

stable. The rooms are small, low in the ceiling, and without means of ventilation. The buildings are old and incapable of any alterations in the way of reconstruction. The wooden house occupied as married quarters at Rosia is almost, if not, quite as bad."

"*Female Hospital.*—There is no hospital in the garrison for the treatment of serious cases of disease occurring among the wives and children of soldiers, and the want of it is much felt. I purpose bringing the subject under the notice of his Excellency the Governor in a special report, and urging upon him the necessity, in the interests alike of the troops and the civil population of the garrison, for making some provision of this nature."

Numerous sanitary services were executed by the Royal Engineers during the year under report.

II.—MALTA.

STATISTICAL REPORT.

Malta.

The following movements occurred amongst the corps composing the garrison of Malta during the year; the 101st and 42nd Regiments arrived from England on the 19th of October, and 27th of November, relieving the 1st Battalion of the 18th Regiment, and the 1st Battalion 13th Regiment, which embarked, the first-named for India, on the 20th October, and the last for the Cape of Good Hope, on the 3rd of December.

Exclusive of the Royal Malta Fencible Artillery, the average strength of the garrison during the year was 4,411; the admissions into hospital were 3,912; the deaths, including those of 4 invalids who died on the way home, or at Netley, were 35. The rates represented by those numbers are, of admissions 886·9, and deaths 7·93 per 1,000 of the strength; the former is considerably higher, whilst the latter is fractionally lower, than the corresponding rate of the preceding year.

The following Table shews the sickness and mortality in each of the corps in the Command during the year.

Corps.	Average Annual Strength.	Admitted into Hospital.	Died.			Invalids sent home from Malta.	Ratio per 1,000 of Strength.		
			At Malta.	Of Invalids.	Total.		Admitted.	Died.	Sent home Invalided.
12th Brig., Royal Artillery	970	1075	10	2	12	41	1108·2	12·37	42·27
Royal Engineers	209	218	1	..	1	2	1043·1	4·78	9·57
1st Bn. 13th Regiment ..	588	613	3	..	3	18	1042·5	5·10	30·61
1st " 18th " ..	516	280	2	1	3	17	542·6	5·81	32·94
28th Regiment	636	513	4	..	4	22	806·6	6·29	34·59
42nd "	62	61	..	..	..	..	983·9	..	..
71st "	633	484	1	1	2	12	764·6	3·16	18·96
74th "	644	510	6	..	6	13	792·0	9·32	20·18
101st "	108	119	2	..	2	..	1101·8	18·52	..
Departmental Corps ..	45	39	2	..	2	2	866·6	44·41	44·44

	Years of completed Service in the Command.
12th Brig'de Royal Artillery	1
1st Battal'n 13th Regiment, embarked for Cape in December	2
1st Battal'n 18th " embarked for India in October..	2
28th Regiment	2
42nd " arrived from England in November	..
71st "	1
74th "	2
101st " arrived from England in October	..

Malta.

The highest rates of admissions, deaths, and of invaliding (omitting the 101st Foot, and Departmental Corps), are united in the 12th Brigade of Royal Artillery; whilst the lowest rates of admissions and of deaths, and the second lowest rate of invaliding of any corps which was stationed in the Command for the greater part of the year, are united in the 71st Regiment.

The following Table shews the sickness and mortality in each class, and order, of diseases :—

Orders.	Diseases.	1874.—Average Strength, 4,411.						1869–73.	
		Admitted into Hospital.	Deaths.			Annual ratio per 1,000 of Strength.		Annual ratio per 1,000 of Strength.	
			In Malta.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile	959	7	..	7	217·4	1·58	180·7	2·68
2	Constitutional	359	3	3	6	81·4	1·36	79·0	1·60
	II. *Local Diseases.*								
	Diseases of the—								
1	Nervous System ..	57	2	..	2	13·6	·45	10·2	·54
2	Eye	143	..	..	..	32·4	..	27·8	..
3	Ear	23	..	..	..	5·2	..	3·4	..
4	Nose	4	..	..	..	·5	..	·6	..
5	Circulatory System ..	88	8	..	8	19·9	1·81	8·7	1·28
6	Absorbent ,, ..	11	..	..	..	2·5	..	5·0	..
7	Ductless Glands ..	1	..	..	..	·2	..		
8	Respiratory System ..	206	5	..	5	46·7	1·13	40·4	·86
9	Digestive ,, ..	884	3	..	3	200·4	·68	125·3	1·07
10	Urinary ,, ..	147	..	..	..	33·3	..	40·1	·21
11	Generative ,, ..	52	..	..	..	11·8	..	13·5	..
12	Organs of Locomotion..	24	..	1	1	5·4	·23	5·0	·04
13	Cellular Tissue.. ..	129	1	..	1	29·2	·23	26·9	·08
14	Cutaneous System ..	265	..	..	..	60·1	..	63·1	..
	III. *Conditions, &c.*								
	Debility..	67	..	..	..	15·2	..	8·4	..
	IV. *Poisons* ..	9	..	..	..	2·0	..	14·6	·33
	V. *Injuries.*								
2	Accidental	481	..	..	..	109·0	..	95·5	·70
3	Homicidal	..	1	..	1	..	·23	·1	..
4	Self-inflicted	..	1	..	1	..	·23	·7	·37
5	Judicial..	..	..	..	..	..	..		..
	VI. *Surgical Operations*	2	..	..	..	·5	..	·2	·08
	No appreciable disease..	1	..	..	..	·2	..	1·5	..
	Total	3,912	31	4	35	886·9	7·93	750·7	9·84
	Average of 10 Years, 1864–73	..	..	..	..	833·0	13·93	..	..

General Diseases.—In this class there was a slightly increased prevalence compared with that of the preceding year, occurring in the goup of febrile diseases only; constitutional diseases were less prevalent; the rate of admissions for febrile diseases, exceeds that of the previous year by 20·9,

Malta.

and that of the average of the five preceding years by 32 per 1,000 of the strength.

The admissions and deaths from the principal diseases in this class, are shewn in the following Table :—

General Diseases.	1874.		Annual Ratio per 1000 of Strength.			
			1874.		1869–73.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile—						
Eruptive Fevers	7	..	1·6	..	3·8	·49
Continued ,, ...	869	6	197·0	1·36	166·2	1·98
Paroxysmal ,, ...	38	..	8·6	..	7·1	·21
Influenza	27	..	6·1	..	1·2	..
Erysipelas	16	..	3·6	..	1·5	..
Other diseases of this group	2	1	·5	·23	·9	..
Total of Febrile Group.. ..	959	7	217·4	1·59	180·7	2·68
Constitutional—						
Rheumatism	237	..	53·7	..	49·0	..
Syphilis	81	..	18·3	..	18·3	..
Scrofula, Phthisis, &c.	37	6	8·4	1·36	9·7	1·40
Scurvy and Purpura	2	..	·5	..	·3	·04
Anæmia	2	..	·5	..	1·2	..
Other diseases of this group	..	..	..	..	·5	·16
Total of Constitutional Group..	359	6	81·4	1·36	79·0	1·60

Eruptive Fevers.—Of the 7 admissions, 1 was due to small-pox, and 6 were due to measles; the latter disease was prevalent in the spring of the year, the cases occurred in the Royal Artillery, and in the 28th Regiment.

Continued Fevers.—The rate of admissions is 22·1 per 1,000 higher than that of the preceding year, and it is chiefly in this group that the increase in the febrile order has taken place. *Enteric fever*, was endemic in the garrison; the 5 admissions returned do not represent the full extent of the prevalence of this disease during the year, as will be evident from the following extract from the report of the Principal Medical Officer. "It has often been " remarked by my predecessors in office here, that the fevers of Malta, which " constitute so very large a proportion of the aggregate of its diseases, are " always prone to pass into a remittent or typhoid type, and although under " this generic head but few are ranged as belonging to the enteric class, that the " majority of the admissions which partake of the nature of continued fever, " have commonly evidenced enteric complications during their course. The " experience of the past two years has served to confirm this view. Whenever " our varied types of fever have assumed a severe form, and especially " when the fatal result has afforded ocular evidence of their existence, the same " intestinal lesions have been observed which characterise the typhoid of " temperate climates." If evidence were needed in support of the statement quoted above, it would be found in various notices in the reports of the Regimental Medical Officers; some of these refer to the tedious convalescence, and liability to relapse, in many of the cases of the illness returned as simple continued fever, and of the great prevalence of diarrhœa amongst the children the garrison. Three of the five admissions for enteric fever, occurred in the 12th Brigade Royal Artillery, and were received from the Marsamuscetto, Ricasoli, and St. James's Cavalier Barracks, a case from each; it is not stated from what barracks the other two cases, which occurred in the 28th, and 101st Regiments, were received.

Malta.

Simple Continued Fever and *Febricula.*—With the exception of the five admissions for enteric fever, all the admissions returned in the group of continued fevers. were due to those two forms, the rate of prevalence of which is highest in the 1st Battalion 13th Regiment, and in the Royal Artillery, being 289· and 279· per 1,000 of the strengths respectively. The lowest rates of prevalence, omitting mention of the corps which were only a few weeks in the Command, are those of the 1st Battalion 18th, and the 71st Regiments, 126· and 129· per 1,000 respectively. The Medical Officer of the Royal Artillery, thinks that the employment of the men of that arm, on fatigues during the hot season, entailing their exposure to the sun (and in one particular employment on the harbour quay, to the reflected heat from the water) may account for the excess of admissions from simple fevers among the men of the Royal Artillery; this would not however suffice to explain the greater prevalence of the same kind of fevers in the 2nd Battalion 13th Regiment. Writing respecting simple continued fever, the Medical Officer of the 28th Regiment says: "29 cases admitted, most of them were of a mild character, "but a few were complicated with visceral lesions, and several were very "tedious, being followed by neuralgia and rheumatism." Two deaths are returned as due to simple continued fever, one in the Royal Artillery, the other in the Army Hospital Corps.

Paroxysmal Fevers, are in a rate only a little more than the half of that of the preceding year, this is the more remarkable as one of the corps in the garrison had served a short time before on the coast of Africa.

Erysipelas.—The prevalence of this disease was greater than in the preceding year; the remarks in the reports concerning it do not specify whether the cases were idiopathic, or traumatic, or whether the disease spread by infection.

Other Diseases of Febrile Group.—One man of the 28th Regiment died of pyæmia, the primary affection being inflammation of the cellular tissue of the dorsum of the foot; after death purulent depôts were found in the lungs, and in the pericardium.

Rheumatism.—The prevalence was in the same proportion as that of the previous year, but it exceeded the average; many of the admissions were consequent on previous attacks of "fever."

Syphilis, shews a large reduction in the rate of admissions on that of the preceding year, but is the same as that of the average of the period of the five preceding years.

Scrofula, Phthisis, &c.—Diseases of this nature were both less prevalent and less fatal than in 1873.

Local Diseases.—Diseases of the *Circulatory*, and *Respiratory Systems*, are both in rates largely in excess of those of the preceding year, and there is a corresponding increase in the proportions of the deaths in each of these orders; five deaths in the first-named order were caused by aneurism.

Diseases of the Digestive System, are in a rate of 50 per 1,000 of the strength in excess of that of the preceding year, and 70 in excess of the average rate of prevalence; the excess is chiefly caused by the increased number of admissions on account of dyspepsia, the rate of which is nearly double that of the preceding year.

Diseases of the Urinary System.—There is a large reduction in the rate of admissions for diseases of this order, due to the diminished prevalence of gonorrhœa, the admissions for which were little more than half as many as those of the preceding year.

Piosons.—The rate of admissions for diseases due to poisons—in every instance to alcoholic poison does not quite amount to one-sixth of that of 1873, and is less than one-seventh of the average rate. Before ascribing the whole of this large reduction to the increased sobriety of the men, allowance must be made for the great rise in the proportion of admissions returned under the head of dyspepsia.

Injuries.—The proportion of admissions a little exceeds that of the preceding year, but no deaths followed accidents.

Homicidal.—The death returned under this head occurred in the 1st Battalion 18th Regiment, and was from a gun-shot.

ROYAL MALTA FENCIBLE ARTILLERY.

The average strength of this corps during the year was 345 ; the admissions into hospital were 268 ; the number of deaths was 1 ; the rates per 1,000 of the strength, deduced from these numbers are, for admissions 777·, and for deaths 2·9 ; the first being higher, the last much lower than the corresponding rate for the preceding year.

The following Table shews the admissions, and deaths, from the various classes, and orders of diseases :—

Orders.	Average Strength	Royal Malta Fencible Artillery.						Line Regiments at Malta in 1874.	
		345		Annual Ratio per 1,000 of strength.				Annual Ratio per 1,000 of strength.	
				1874.		1869–73.			
	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Frebrile Group	16	..	46·4	..	62·3	1·87	217·4	1·58
2	Constitutional Group ..	34	..	98·6	..	79·1	1·12	81·4	1·36
	II. *Local Diseases.* Diseases of the—								
1	Nervous System	4	1	11·6	2·9	11·7	·75	13·6	·45
2	Eye	53	..	153·6	..	124·2	..	32·4	..
3	Ear	3	..	8·7	..	2·2	..	5·2	..
4	Nose	..	..	..	..	·8	..	·5	..
5	Circulatory System	1	..	2·9	..	3·7	·37	19·9	1·81
6	Absorbent ,, ...	10	..	28·9	..	1·9	..	2·5	..
7	Ductless Glands	..	..	..	..	..	..	·2	..
8	Respiratory System.. ..	15	..	43·5	..	59·7	..	46·7	1·13
9	Digestive ,, ...	41	..	118·8	..	179·4	1·49	200·4	68
10	Urinary ,, ...	10	..	28·9	..	62·6	..	33·3	..
11	Generative ,, ...	3	..	8·7	..	8·5	·37	11·8	..
12	Organs of Locomotion ..	2	..	5·8	..	2·2	..	5·4	·23
13	Cellular Tissue	8	..	23·2	..	39·2	..	29·2	·23
14	Cutaneous System	33	..	95·7	..	105·5	..	60·1	..
	III. *Conditions.*								
	Debility	1	..	2·9	..	1·4	..	15·2	..
	IV. *Poisons.*	..	..	..	..	1·1	..	2·0	..
	V. *Injuries.*								
2	Accidental	33	..	95·7	..	41·9	..	109·0	..
3	Homicidal	..	..	..	..	..	..	..	·23
4	Self-inflicted	..	..	..	..	·4	..	..	·23
	VI. *Surgical Operations.*	..	..	..	..	..	..	·5	..
	No Appreciable Disease ..	1	..	2·9	..	·4	..	·2	..
	Total	268	1	776·8	2·9	788·2	5·97	886·9	7·93
	Average of 10 years, 1864–73	..	..	883·0	8·35	..	..	..	..

GENERAL DISEASES, were a little more prevalent than in the preceding year, the excess being in those of the *constitutional group* ; diseases of the *febrile group* were less prevalent.

LOCAL DISEASES.—*Diseases of the Eye* are in a rate nearly double that of the preceding year; the Medical Officer remarks that ophthalmia, which

Malta. was epidemic amongst the natives of the island, broke out amongst the men of the regiment in July, and continued to be of frequent occurrence until December; the cases were rarely of a severer kind than ordinary conjunctivitis.

SANITARY REPORT.

Surgeon-General Innes, C.B., in his report mainly deals with the defects which have been previously noticed. "Essentially the quarters have remained the same, but in addition to many minor improvements which have taken place, a new gymnasium has been opened at Verdala, which for some months past has been in full operation. We have now two gymnasiums for the Valletta and Cottonera districts, the practice in which has been attended with the best results.

"New barracks for the married families of the troops have been erected at Floriana. These when occupied, will enable us to vacate 21 of the objectionable Crimean Huts, all of which are in a dilapidated state, and not adapted for the accommodation of men, women, and children.

"The new Cottonera Hospital opened in 1873 has continued to afford good and ample accommodation for the sick of the Cottonera District, but the absence of any special ward for the segregation of infectious diseases has been a cause of complaint.

"Surgeon-Major Hinton remarks that enteric and simple continued fevers, and diphtheria appear to have become endemic diseases in the island; and the following causes are dwelt upon: the poverty, and over-populated condition of the places, the insanitary state of the centres of population, the system of cess-pits and defective drainage, and the extreme porosity and absorbent nature of the stone, which readily allows percolation of all kinds of deleterious matter into the surrounding structures. This last condition has been remedied as far as possible in barracks and military buildings by the use of glazed earthenware pipes for conveying away the contents of privies and urinals, but most of the private houses of the inhabitants have never been provided with an efficient system of drainage, and cess-pits exist possessing only a surface outflow."

Section II.

On the extent of Invaliding among the Troops serving in the Mediterranean.

fediterranean The number of invalids sent home from Gibraltar was 110, and from Malta 127, being in the rate of 23·57 per 1,000 of the mean strength from the former, and of 28·15 from the latter station. At Netley, 57 invalids from Gibraltar, and 93 from Malta, or 12·2 and 20·6 per 1,000 of the strength respectively, were finally discharged from the service.

The classes and orders of the diseases of the invalids are shewn in the following Table:—

Orders.	Diseases.	Invalids sent home from			Invalids discharged at Netley from		
		Gibraltar.	Malta.	Total.	Gibraltar.	Malta.	Total.
	I. *General Diseases.*						
1	Febrile Group	7	3	10	..	..	..
2	Constitutional „	32	32	64	15	21	36
	II. *Local Diseases.* Diseases of the—						
1	Nervous System	12	12	24	3	7	10
2	Eye	3	9	12	1	6	7
3	Ear	4	3	7	2	3	5
5	Circulatory System	20	28	48	18	30	48
7	Ductless Glands	1	1	2	1	1	2
8	Respiratory „	4	6	10	2	4	6
9	Digestive „	8	10	18	5	4	9
10	Urinary „	3	1	4	1	1	2
11	Generative „	2	..	2	..	1	1
12	Organs of Locomotion	1	5	6	2	4	6
13	Cellular Tissue	..	..	..	2	..	2
14	Cutaneous System	3	1	4	..	1	1
	III. *Conditions, &c.*						
	Debility	7	15	22	3	7	10
	V. *Injuries.*						
	Accidental..	3	1	4	2	3	5
	Total	110	127	237	57	93	150
	Ratio per 1,000 of Mean Strength { 1874 ..	23·57	28·79	26·11	12·21	21·08	16·53
	Ratio per 1,000 of Mean Strength { 1864-73	29·79	24·39	26·95	19·71	16·52	18·03

Whilst the proportion of invalids sent home from Gibraltar exceeds that of the previous year, the proportion of those finally discharged the service at Netley is identical in both years; both are in much lower proportions than the average of 10 years. With respect to the invaliding of the Malta Command, whilst the rate of invalids sent home is lower than that of the preceding year, that of men from it finally discharged the service is higher, and both rates are in excess of those of the average of 10 years for the Command.

Section III.

Mean Daily Sick.

The average number constantly sick in Gibraltar, was 145; and in Malta, 175; being in the annual rates of 31·04 and 38·85 per 1,000 men respectively, the former is slightly higher, and the latter is a little lower than the corresponding rate of the preceding year.

The usual information calculated from these numbers is given in the following Table:—

Mediterranean

		Gibraltar.	Malta, exclusive of Royal Malta Fencibles.	United Kingdom. Infantry Regiments.
Average Strength in 1874 ..		4,666	4,411	
Average constantly sick		145·08	175·26	
Ratio per 1,000 constantly sick	1874 ..	31·04	39·73	38·59
	1864–73..	33·18	42·22	41·44
		days	days	days
Average sick time to each Soldier	1874 ..	11·34	14·50	14·09
	1864–73..	12·11	15·41	15·12
Average duration of the cases	1874 ..	18·57	16·35	16·76
	1864–73..	18·42	18·50	17·90

It will be seen that the results in 1874, as contrasted with those of the average of 10 years, are satisfactory.

Section IV.

On the Influence of Age on the Mortality.

The following Table shews the relation of age to mortality amongst troops serving in the Mediterranean Commands:—

			Under 20.	20 and under 25.	25 and under 30.	30 and under 35.	35 and under 40.	40 and upwards.
Mediterranean Commands.	1874	Average Strength ..	360	1,421	1,086	564	358	93
		Died	..	8	6	8	5	1
		Ratio per 1,000 of Strength ..	..	5·63	5·52	14·18	13·96	10·75
	1864–73	Do. Do. ..	3·18	6·04	12·61	13·50	21·05	30·92

III.—ON THE HEALTH OF TROOPS SERVING IN THE DOMINION ON CANADA.

Section I.

Sickness and Mortality.

STATISTICAL REPORT.

Dominion of Canada.

The only station in this Command occupied in 1874 was Halifax, the troops stationed there consisted of the Head-Quarters and 3 Batteries of the 7th Brigade Royal Artillery, of a Company of Royal Engineers, of the 1st Battalion 60th Foot, of the 87th Foot, and of details of Garrison Staff, Army Service, and Army Hospital Corps. No change of Corps took place during the year; there were 1,021 admissions into hospital, and 10 deaths, 8 of which occurred in the Command, and 2 were those of invalids who died after arrival at Netley. The rates represented by these numbers are for admissions, 613·, and for deaths, 6· per 1,000 of the mean annual strength. The first rate is considerably higher than the corresponding one of last year, but is nearly the same as that of the average of the ten years preceding; the rate of deaths is little more than the half of that of 1873, and is nearly a third less than that of the average of 10 years.

The sickness and mortality in each of the corps in the Command were as follows:—

Corps.	Average Annual Strength.	Admitted into Hospital.	Deaths.				Annual ratio per 1,000.	
			In Hospital.	Out of Hospital.	Of Invalids.	Total.	Admitted.	Died.
Royal Artillery ..	325	232	..	..	..	..	713·	..
,, Engineers ..	101	40	1	..	..	1	396·	9·90
1st Bn. 60th Foot ..	615	340	1	..	..	1	552·	1·62
87th Foot	594	402	4	1	2	7	676·	11·78
Garrison Staff, Army Service, and Army Hospital Corps ..	30	7	1	..	..	1	233·	33·33

	Years of Service in the Command.
7th Brigade Royal Artillery	1
1st Battalion 60th Foot	7
87th Foot	2

The following Table shews the admissions and deaths from the different classes and orders of diseases:—

Dominion of Canada.

Orders.	Diseases.	Strength, 1,665.				1874.		1869–73.	
			Deaths.			Annual Ratio per 1,000.		Annual Ratio per 1,000.	
		Admissions.	In Dominion of Canada.	Of Invalids.	Total.	Admissions.	Deaths.	Admissions.	Deaths.
	I. *General Diseases.*								
1	Febrile Group ..	64	..	..	..	38·4	..	37·9	·62
2	Constitutional ,, ..	139	3	2	5	83·4	3·00	112·7	1·24
	II. *Local Diseases.* Diseases of the—								
1	Nervous system	18	..	..	..	10·8	..	9·5	·83
2	Eye	33	..	..	..	19·8	..	13·5	..
3	Ear	13	..	..	..	7·8	..	2·5	..
4	Nose	..	..	..	..	..	..	·5	..
5	Circulatory system ..	25	1	..	1	15·0	·60	6·7	1·45
6	Absorbent ,, ..	14	..	..	..	8·4	..	14·9	..
7	Ductless Glands.. ..	..	..	..	..	..	..	1·1	..
8	Respiratory system ..	135	1	..	1	81·1	·60	70·6	1·71
9	Digestive ,, ..	172	..	..	..	103·3	..	77·2	·36
10	Urinary ,, ..	75	..	..	..	45·1	..	77·7	·31
11	Generative ,, ..	11	..	..	..	6·6	..	10·5	..
12	Organs of Locomotion ..	8	..	..	..	4·8	..	4·2	·10
13	Cellular Tissue	29	..	..	..	17·4	..	20·3	·05
14	Cutaneous system ..	88	1	..	1	52·9	·60	51·5	..
	III. *Conditions, &c.*								
	Debility	12	..	..	..	7·2	..	4·1	..
	IV. *Poisons* ..	5	1	..	1	3·0	·60	9·4	·31
	V. *Injuries.*								
2	Accidental	178	..	..	..	106·9	..	84·0	·88
3	Homicidal	..	..	..	..	..	..	·1	·10
4	Self-inflicted	1	1	..	1	·6	·60	·2	·46
	VI. *Surgical Operations*	1	..	..	..	·6	..	·3	·05
	No appreciable disease ..	..	..	..	..	..	..	·7	..
	Total	1,021	8	2	10	613·1	6·00	610·1	8·47
	Average of 10 years, 1864–73.. ..	..	..	..	..	647·5	9·49	..	..

General Diseases.—The admissions in this class are in a higher proportion than in the previous year, the rate of deaths is nearly the same; the admissions in both the *Febrile*, and *Constitutional Groups*, exceed those of 1873, all the deaths were due to diseases in the last-mentioned group.

The following Table shews the admissions, and deaths, from the principal diseases included in this class:—

Diseases.	Admitted.	Died.	Ratio per 1,000 of Strength. 1874. Admitted.	1874. Died.	1869–73. Admitted.	1869–73. Died.
Febrile—						
Eruptive Fevers	..	..	..	..	2·4	·05
Continued ,,	31	..	18·6	..	17·4	·42
Paroxysmal ,,	1	..	·6	..	5·3	..
Cholera	3	..	1·8	..	..	..
Influenza	25	..	15·0	..	7·2	..
Erysipelas	4	..	2·4	..	4·5	·10
Other Diseases of this group	..	..	..	..	1·1	·05
Total of Febrile Group	64	..	38·4	..	37·9	·62
Constitutional—						
Rheumatism	64	..	38·4	..	35·6	..
Syphilis	63	1	37·8	·60	69·4	..
Scrofula, Phthisis, &c.	4	4	2·4	2·40	5·7	1·09
Scurvy and Purpura	..	..	..	..	·6	..
Anæmia	2	..	1·2	..	·4	..
Other Diseases of this group	6	..	3·6	..	·9	·15
Total of Constitutional Group	139	5	83·4	3·00	112·6	1·24

Eruptive Fevers.—There were no admissions from diseases of this nature during the year.

Continued Fevers, were more prevalent than in the previous year, but the two formidable fevers which caused deaths in 1873, were absent in the year now under review. Two-thirds of the admissions from *simple continued fever,* and from *febricula,* occurred in the 87th Foot.

Erysipelas.—The prevalence of this disease was in the same proportion as in 1873; no deaths were due to it.

Rheumatism.—The rate of admissions is fractionally higher than in 1873.

Syphilis.—The rate of admissions is a little higher than in the previous year; one man died from the secondary effects of the disease. The proportion of admissions to strength is not much more than the half of that of the average of the ten preceding years.

Scrofula and Phthisis.—In this group of diseases, with a lower rate of admissions, that of deaths is double the corresponding rate of the previous year.

LOCAL DISEASES.—*Diseases of the Nervous System.*—The proportion of admissions is higher than that of the previous year, but it only fractionally exceeds the proportion of the average of the ten preceding years.

Diseases of the Eye, were much more prevalent than in 1873, the excess of admissions being caused by an outbreak of conjunctivitis, in the third quarter of the year, extending to both of the Infantry regiments in the garrison; the importance of the outbreak is rather to be measured by the permanent loss than by the admissions due to it; the Principal Medical Officer states in his report that three men were invalided from the effects of this disease.

Diseases of the Circulatory System.—An increased prevalence of diseases of this nature without corresponding increase of mortality, is accounted for by the more numerous admissions for palpitation.

Respiratory System.—A slightly increased prevalence with a largely reduced proportion of deaths, compared with the preceding year, is shewn in the statistics of the present; the rate of admissions is also higher, and that of deaths is considerably lower than the corresponding rate of the average of the ten preceding years.

Dominion of Canada.

Diesases of the Digestive System.—The proportion of admissions is 22· per 1,000 of the strength higher than the corresponding rate of 1873, and is still more largely in excess of the average. The disease which has chiefly contributed to this result, is diarrhœa; the admissions from dyspepsia were also rather more numerous than in 1873.

Diseases of the Urinary System, have been less prevalent than in the preceding year; the decrease is due to the fewer admissions for gonorrhœa.

POISONS.—All the admissions under this head were due to intemperance; one admission was due to an excessive draught of rum—the man died from the peritonitis which was speedily set up,—and four admissions to delirium tremens; the proportion is little more than the half of that of 1873.

INJURIES.—The proportion of admissions for injuries is considerably higher than that of the preceding year, and than that of the average; falls on the ice contributed largely to increase the admissions under this head. The suicidal death was by gunshot.

SANITARY REPORT.

Deputy Surgeon-General Lloyd reports that no special causes of serious illness have existed. The principal sanitary defects enumerated are mainly those that have been already detailed. "The Medical Officers of regiments have reported on the defective heating of the rooms in Wellington Barracks, owing to the old pattern grate in use having no radiating power, and the great size of the flue allowing all the heat to escape up the chimney. This is a reasonable cause of complaint, and for a time was productive of much discomfort. To preserve the health of the soldier in severe weather, some improved method of heating the rooms is urgently required."

The leading improvements effected during the year have been :—

Ten new rooms added to the Pavilion married quarters. In the Citadel, improvement of some of the casemates by enlargement of windows, reconstruction of the flues and the insertion of modern pattern grates; and construction of two staff serjeants' quarters out of cells which had been condemned as unfit for occupation. The principal block of the South Barracks has been overhauled and renovated, larger windows put in at the back, and modern grates inserted.

Section II.

On the Extent of Invaliding.

39 invalids were sent to England, and 25 invalids from the Command were finally discharged the service at Netley, during the year, the proportion of the former is 23·42 per 1,000 of the strength.

The following Table shews the classes of diseases by which the invaliding was caused :—

Dominion of Canada.

Disabilities.	Invalids sent home from Canada.	Invalids Discharged the Service	
		In Canada.	At Netley
Rheumatism	4	..	1
Syphilis	1	..	2
Phthisis	3	..	4
Epilepsy	1	..	..
Mania	2	..	..
Diseases of the—			
Eye	3	..	3
Circulatory System	8	..	9
Respiratory ,, ...	6	..	1
Digestive ,, ...	2	1	..
Urinary ,, ...	1	..	..
Organs of Locomotion	3	..	3
Debility	4	..	2
Injuries	1	1	..
Total	39	2	25
Ratio per 1,000 of Mean strength.. 1874	23·42	1·20	15.02
Ratio per 1,000 of Mean strength.. 1864–73 ..	16·69	2·64	10·43

The proportion of men invalided from the Command is almost identical with that of the preceding year, and exceeds the average by nearly one-third.

Section III.

Mean Daily Sick.

The average number constantly sick during the year was 49·42, being in the rate of 29·68 per 1,000 of the strength, a considerably higher proportion than in 1873, but a slightly lower one than the average.

In the following Table the usual information calculated from these numbers is given :—

	1874.	1864–73.
Ratio per 1,000 of strength constantly sick ..	29·68	30·86
	days.	days.
Average sick time to each soldier	10·83	11·26
Average duration of the cases of disease ..	17·66	15·26

The results in all the particulars are unfavourable as compared with 1873, but not to an important extent.

Section IV.

On the Influence of Age on the Mortality.

The following Table shews the proportions of mortality at the several ages, averaged in quinquennial periods.

	Under 20 Years.	20 and under 25.	25 and under 30.	30 and under 35.	35 and under 40.	40 and upwards.
Ratio of deaths per 1,000 of the mean strength 1874	...	3·16	5·18	8·40	5·81	52·63
Ratio of deaths per 1,000 of the mean strength 1864–73	4·77	5·54	9·57	11·57	18·07	22·98

IV.—ON THE HEALTH OF THE TROOPS SERVING IN BERMUDA.

Section I.

Sickness and Mortality.

STATISTICAL REPORT.

Bermuda. THE troops serving in the Command during the whole year were the 3rd and 4th Batteries 7th Brigade Royal Artillery; a body of Royal Engineers; the 1st Battalion, 20th Foot, the 53rd Foot, and details of Garrison Staff, Army Service, and Army Hospital Corps.

The average annual strength of the troops was 1866; the admissions into hospital amongst them were 1,080, and the deaths, including those of 3 invalids from the Command who died at Netley, were 19; the proportions represented by these numbers are, of admissions 579, and of deaths 10·18 per 1,000 of the mean strength, the first is a little lower, the last is higher than the corresponding rate of the preceding year, but both are much below the average rates of a period of ten years.

The following Table shews the sickness and mortality in the different corps:—

Corps.	Average Annual Strength.	Admitted into Hospital.	Died.			Ratio per 1,000 of Strength.	
			In the Command.	Invalids at Netley.	Total.	Admitted.	Died.
Royal Artillery ..	206	91	..	..	..	441·	..
Royal Engineers ..	363	282	5	..	5	779·	13·77
1st Bn., 20th Foot ..	666	348	5	1	6	522·	10·51
53rd Foot	557	359	5	1	6	644·	10·77

The other deaths were those of a serjeant, and of a private, of the Army Hospital Corps.

The admissions and deaths from the different classes and orders of diseases are shewn in the following Table:—

	Years of Service in the Command.
Royal Artillery	2
1st Battalion 20th Foot	1
53rd Foot	4

Orders.	Diseases.	1874. Average Strength, 1,866.						1869–73.	
		Admitted into Hospital.	Deaths.			Annual ratio per 1,000 of Strength.		Annual ratio per 1,000 of Strength.	
			At Bermuda.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group ..	85	3	..	3	45·5	1·61	87·6	2·77
2	Constitutional ,, ..	125	1	3	4	67·0	2·14	78·0	2·13
	II. *Local Diseases.*								
	Diseases of the—								
1	Nervous system ..	19	5	..	5	10·2	2·68	10·9	1·06
2	Eye	21	..	..	..	11·3	..	22·3	..
3	Ear	1	..	..	..	·5	..	3·4	..
4	Nose	..	..	..	..	..	..	·3	..
5	Circulatory system ..	16	4	..	4	8·6	2·14	8·2	1·38
6	Absorbent ,, ..	27	..	..	..	14·5	..	10·2	..
8	Respiratory ,, ..	69	2	..	2	37·0	1·07	38·4	·42
9	Digestive ,, ..	253	..	..	..	135·6	..	172·7	1·06
10	Urinary ,, ..	49	..	..	..	26·3	..	30·0	·32
11	Generative ,, ..	12	..	..	..	6·4	..	9·4	..
12	Organs of Locomotion..	11	..	..	..	5·9	..	2·3	..
13	Cellular Tissue.. ..	53	..	..	..	28·4	..	28·7	·11
14	Cutaneous system ..	65	..	..	..	34·8	..	76·4	·11
	III. *Debility* ..	9	..	..	..	4·8	..	9·1	..
	IV. *Poisons* ..	52	..	..	..	27·9	..	21·4	·85
	V. *Injuries.*								
2	Accidental..	209	1	..	1	112·0	·54	112·7	1·60
4	Self-inflicted	1	..	..	..	·5	..	·6	1·17
	VI. *Surgical Operations*..	..	..	..	..	..	..	·1	..
	No appreciable disease ..	3	..	..	..	1·6	..	·2	..
	Total	1,080	16	3	19	578·8	10·18	722·9	12·98
	Average of 10 years 1864-73	..	..	..	..	751·1	26·45	..	..

General Diseases, were less prevalent, but more fatal, than in the preceding year; the reduction in prevalence, and the increased mortality, extended to both groups of the class.

The following Table shews the admissions, and deaths, from the principal diseases of this class :—

Bermuda.

Diseases.	Admitted.	Died.	Ratio per 1,000 of Mean Strength. 1874. Admitted.	1874. Died.	1869–73. Admitted.	1869–73. Died.
Febrile—						
Eruptive Fevers	1	..	·5	..	..	..
Continued „	70	3	37·5	1·70	73·7	2·66
Paroxysmal „	1	..	·5	..	1·6	..
Influenza	12	..	6·4	..	11·5	..
Erysipelas	1	..	·5	..	·3	..
Other diseases of this group.. ..	..	..	..	..	·5	·10
Total of Febrile Group	85	3	45·4	1·70	87·6	2·76
Constitutional—						
Rheumatism	54	..	28·9	..	37·0	..
Syphilis	48	..	25·7	..	31·0	·10
Scrofula, Phthisis, &c.	19	4	10·2	2·14	9·0	1·91
Anæmia	2	..	1·0	..	·3	..
Other Diseases of this Group ..	2	..	1·0	..	·6	·10
Total of Constitutional Group ..	125	4	66·8	2·14	77·9	2·11

Eruptive Fevers.—One admission from scarlet fever, represents the sickness due to fevers of this nature in the year.

Continued Fevers.—There were seven admissions from enteric fever, three of them in the Royal Engineers, three in the 1st Battalion 20th, and one in the 53rd Regiment; of the attacks, three were fatal. The admissions were most numerous in the fourth quarter of the year. The reports of the Medical Officers allude to the unwholesome conditions existing in the principal town of the Command, but they throw no light on the causation of this disease in barracks remote from the town, and distant from each other. From simple continued fever, and febricula, together there were 63 admissions, the relatively greatest number was in the Royal Engineers, and the smallest in the Royal Artillery.

Paroxysmal Fevers.—The nearly complete immunity from fevers of this nature is in harmony with the experience of preceding years.

Rheumatism.—The rate of admissions is one-third less than that of the preceding year, and is lower than the rate of the average of five years immediately preceding.

Syphilis.—The rate of admissions is nearly a third less than the rate of the year preceding.

Scrofula, Phthisis, &c.—Eighteen of the admissions in this group were from phthisis, and the other was also due to tubercular disease; the proportion of admissions exceeds that of the preceding year by 3·7, and the proportion of deaths is ·6 higher, per 1,000 men.

LOCAL DISEASES.—*Diseases of the Nervous System.*—The rate of admissions is slightly lower than that of the year preceding, but the proportion of deaths due to diseases of this nature is higher; three deaths were caused by apoplexy, one by epilepsy, and one by paralysis. The reports make mention of the prevalence of drunkenness in the Command, but do not connect the high rate of mortality in this group of diseases, with that vice.

Diseases of the Respiratory System, were both more prevalent, and more fatal, than in the year preceding, but the rate of admissions, and that of deaths, were both moderate.

Diseases of the Digestive System.—The admissions are in a rate of 53· per

1,000 of the strength lower than the corresponding rate of 1873; no deaths were due to diseases in this group.

Diseases of the Urinary System.—Exactly the same number of admissions for diseases of this nature took place as in the preceding year, but in a smaller strength the rate is higher; compared with that of other Commands, however, it is low.

POISONS.—The admissions returned under this head were all the results of drunkenness; the proportion exceeds that of any other Command. Of the 52 admissions, 29 occurred in the 53rd Foot, and 18 in the Royal Engineers, whilst only three men of the 1st Battalion 20th Foot were admitted during the year for diseases of this nature.

INJURIES.—A slightly higher rate of admissions than that of 1873, is found in connection with a lower death rate.

SANITARY REPORT.

The Principal Medical Officer enumerates many sanitary services of a minor character as having been executed during the year, and adds that new barracks at St. George's will be probably completed in the year 1877. No. 1 block is already complete. The most important change during the year consisted in an alteration in the scale of the soldier's diet. On the 21st July the troops were ordered to receive fresh meat six days a-week, instead of five, and salt pork only once. This has proved of great benefit to the health of the troops.

Section II.

On the Extent of Invaliding.

Forty-one invalids were sent home from this Command, and 42 were discharged the service at Netley during the year, the proportion of the first mentioned being 21·97 per 1,000 of the strength, an increase on that of the year preceding.

The following Table shews the classes of diseases by which the invaliding was caused:—

Diseases.		Invalids sent home.	Discharged the Service at Netley.
Rheumatism		3	1
Syphilis		3	3
Phthisis		7	11
Anæmia		2	1
Gout		..	1
Diseases of the—			
Nervous System		2	3
Ear		..	1
Circulatory System		7	11
Respiratory "		2	3
Digestive "		1	1
Urinary "		2	..
Organs of Locomotion		2	1
Cellular Tissue		1	..
Cutaneous "		3	..
Debility		5	3
Injuries		1	1
Surgical Operations		..	1
Total		41	42
Ratio per 1,000 of strength	1874	21·97	22·50
	1864–73	22·10	13·22

Bermuda.

Section III.

Mean Daily Sick.

The average number in hospital throughout the year, was 52·15.

The following Table gives the usual information, calculated from the number constantly sick:—

	1874.	1864–73.
Ratio per 1,000 of strength constantly Sick ..	27·94	38·83
	days.	days.
Average Sick time to each Soldier	10·20	14·11
Average duration of the cases of Disease	17·62	18·87

The number constantly in hospital was 2·27 per 1,000 of the strength less than in 1873; the average sick time of each soldier was fractionally less, but the average duration of each case of sickness was fractionally longer.

Section IV.

On the Influence of Age on the Mortality.

The following Table, shews the rates of mortality at the several ages, arranged in quinquennial periods:—

		Under 20.	20 and under 25.	25 and under 30.	30 and under 35.	35 and under 40.	40 and upwards.
Ratio of deaths per 1,000 of mean strength	1874 ..	..	6·56	8·93	7·46	22·90	..
	1864–73	4·26	13·05	19·50	26·14	37·80	12·04

V.—ON THE HEALTH OF THE TROOPS SERVING IN THE WEST INDIES.

Section I.

Sickness and Mortality

I. Windward and Leeward Command.

STATISTICAL REPORT.

I. White Troops.

Windward and Leewa Command.

The force in the West India Command in 1874, consisted of the 5th and 6th Batteries 7th Brigade Royal Artillery, of the 97th and 98th Regiments, (the left wing of the first named regiment embarked for Bermuda, on December 23), of a few men of the Royal Engineers, of Staff Serjeants of the 1st and 2nd West India Regiments, and those of a Corps of Military Labourers, and of non-commissioned officers, and men, of the Army Hospital Corps.

The stations occupied during the year were Barbadoes, Trinidad, Demerara (to the 4th of August), and Jamaica. In the last-named station the troops were quartered at Newcastle, and at Port Royal; from time to time, part of the wing of the 97th Regiment occupied Up Park Camp; from the 1st of January to the 18th of June, a detachment of the same corps was stationed at Nassau in the Bahamas.

The mean strength of the troops for the year was 1,713. The admissions into hospital were 2,017, the deaths were 29; the rates deduced from these numbers are—of admissions 1,177, and of deaths 16·90 per 1,000 of the strength; the first is a little lower, the last is a fourth higher, than the corresponding rate of the preceding year.

The above proportions are those for the whole Command, but if the statistics of the two principal divisions of it—the Windward and Leeward Islands, and Jamaica—are taken separately, the rate of admissions of the former is 991, and of deaths 6·45 per 1,000 of the strength, that of the latter for admissions is 1,500, and for deaths 35·08 per 1,000.

In the following Table, the admissions, and deaths, from the different classes, and orders, of diseases are shewn:—

Windward and Leeward Command.

Orders.	White Troops.	1874.						1869–73.	
		Strength, 1,713.				Ratio per 1,000.		Ratio per 1,000.	
			Died.						
	Diseases.	Admitted.	In West Indies.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group	545	17	..	17	318·2	9·92	177·7	4·45
2	Constitutional ,,	228	3	..	3	133·1	1·75	95·5	2·23
	II. *Local Diseases.* Diseases of the—								
1	Nervous System ..	31	1	..	1	18·1	·58	9·2	1·11
2	Eye	16	..	..	..	9·3	..	12·7	..
3	Ear	23	..	..	..	13·4	..	8·4	..
4	Nose..	..	..	..	..	..	..	·6	..
5	Circulatory System .	21	1	..	1	12·3	·58	12·2	1·11
6	Absorbent ,, ..	46	..	..	..	26·8	..	18·6	..
7	Ductless Glands ..	1	..	..	..	·6	..	·2	..
8	Respiratory System .	62	1	..	1	36·2	·58	30·2	..
9	Digestive ,, ..	321	1	..	1	187·4	·58	99·2	·16
10	Urinary ,, ..	164	..	..	..	95·7	..	105·9	·16
11	Generative ,, ..	31	..	..	..	18·1	..	12·9	..
12	Organs of Locomotion	7	..	..	..	4·1	..	4·6	..
13	Cellular Tissue ..	66	..	..	..	38·5	..	23·2	..
14	Cutaneous System ..	138	..	..	..	80·6	..	86·2	..
	III. *Conditions, &c.*								
	Debility	31	..	..	..	18·1	..	7·8	·16
	IV. *Poisons* ..	15	3	..	3	8·8	1·75	25·8	·32
	V. *Injuries.*								
2	Accidental	267	1	..	1	155·9	·58	115·8	·79
4	Self-inflicted ..	2	1	..	1	1·1	·58	·2	·16
	VI. *Surgical Operations..* ..	1	..	..	..	6	..	·2	..
	No appreciable disease	1	..	..	..	·6	..	1·4	..
	Total.. ..	2,017	29	..	29	1177·5	16·90	848·5	10·65
	Average of 10 years 1864–73	..	..	..	..	1067·16	17·05	..	..

General Diseases.—The rate of admissions is 155·, and that of deaths 4·84 per 1,000 of the strength higher than the corresponding rate of the preceding year, and both are also to nearly the same extent in excess of the rates of the average of the five preceding years. The increase has taken place in both groups of the class, but it is greatest in that of febrile diseases. The admissions and deaths from the principal diseases in the class, are shewn in the following Table :—

Windward and Leeward Cammand.

White Troops.	1874.				1869–73.	
General Diseases.	Strength 1,713		Ratio per 1,000.		Ratio per 1,000.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile—						
Eruptive Fevers	6	..	3·5	..	..	..
Continued Fevers	382	15	223·0	8·75	109·4	·95
Yellow Fever	..	..	..	..	6·2	2·39
Paroxysmal Fevers	150	2	87·6	1·17	57·7	1·11
Influenza	4	..	2·3	..	1·9	..
Erysipelas	3	..	1·8	..	1·1	..
Other Diseases of this group	..	..	..	..	1·4	..
Total	545	17	318·2	9·92	177·7	4·45
Constitutional—						
Rheumatism	47	..	27·4	..	17·5	..
Syphilis	117	..	68·3	..	61·5	..
Scrofula, Phthisis, &c.	15	3	8·8	1·75	8·7	2·23
Scurvy and Purpura	..	..	..	..	·2	..
Anæmia	49	..	28·6	..	5·7	..
Other Diseases of this group	..	..	..	..	1·9	..
Total	228	3	133·1	1·75	95·5	2·23

Eruptive Fevers.—Including four admissions after vaccination, only six men were admitted in the whole Command during the year, on account of fevers of this nature; one admission was due to chicken-pox, and one to measles.

Continued Fevers.—The rate of admissions on account of continued fevers of all kinds is 132· per 1,000 higher than that of the preceding year. The occurrence of fevers of this nature in Jamaica was in the proportion of 362·, whilst in the whole of the remainder of the Command it was only 135· per 1,000 of the strength. All the 15 deaths from continued fevers, occurred in Jamaica.

Enteric Fever.—26 admissions are returned from this disease, they all took place at the station of Newcastle, in Jamaica, with the exception of one, that of a man who had acquired his illness there, although he was admitted into hospital at Port Royal; 15 of the cases were fatal. The corps in which enteric fever occurred were the 5th Battery 7th Brigade Royal Artillery, the wing of the 97th Regiment, and a detachment of the 98th Regiment stationed there part of the year; there were 3 admissions in the Artillery, 18 in the 97th, and 5 in the 98th, but as will be seen from the following extract from the report of the Medical Officer of the 98th Regiment, the number of admissions for enteric fever at Newcastle is probably understated:—"During the period from 1st January to 31st December "1874, the health of the Head-Quarters has been indifferent, the chief cause "being fevers. Out of 489 admissions into hospital 221 were admitted under "the head of fevers, and most of those cases were complicated with enteric "symptoms, in many cases severe." Assuming that the deaths in the temperate climate of Newcastle were 20 in every 100 attacks, the 15 deaths returned would give 75 as the estimated number of attacks. Enteric fever was present at Newcastle in 1873, the epidemic in the present year being doubtless the fuller development of the outbreak of the preceding year. In the reports of the Medical Officers no mention is made as to whether the prevalence of the disease was more marked in one part of the station than in another, or whether any part had complete exemption, but it is stated

Vindward
nd Leeward
Command.

by the Medical Officer of the 97th Foot that nearly all the severe cases were those of young soldiers who had recently arrived at the station. From the quarterly returns it is gathered that the number of attacks was greatest in the second and third quarters of the year, and about equal in the first, and last. With regard to the conditions at Newcastle detrimental to health, the report states that:—" The general sanitary condition in the " vicinity of barracks must, in a great measure, account for the unusual number " of fever cases admitted. All the refuse which is collected from the barracks, " &c., is at present thrown down the gullies, and is most objectionable on " sanitary grounds, as it soon decomposes and emits a most offensive odour." . . . . " Within the past month deep pits have been dug for the reception " of all the refuse from the barracks and cook-houses, these are filled in " every day. The latrines on the dry earth system, and urinals, are also most " unsatisfactory in many ways, the receptacles at present in use are old and " worn out, thereby allowing the contents to escape and saturate the ground " about."

Paroxysmal Fevers.—The rate of admissions for fevers of this nature, is 13· per 1,000 lower than that of the preceding year, and that of deaths is also lower ; two-thirds of the admissions for paroxysmal fevers occurred in Jamacia, most of them at Newcastle ; the following extract from the report of the Medical Officer of the Detachment 98th Foot refers to these fevers. " Remittent fever.—48 cases of this disease were treated during the " year. The cases admitted at Newcastle were complicated in almost " every instance with diarrhœa and tenderness of the abdomen, evidently " shewing a tendency towards typhoid symptons ; one case of this disease " died at Newcastle, which was evidently of the bilious remittent type ; " *post-mortem* revealed congestion of the liver, with a similar state of " intestines."

Syphilis.—There was an increased prevalence of this disease compared with the preceding year, the excess in the rate being 21 per 1,000 of the strength.

Scrofula, Phthisis, &c.—A slightly increased prevalence of diseases of this nature on that of 1873 is apparent, but the rate is the same as that of the average.

LOCAL DISEASES.—An increase in the rate of admissions of diseases of the *nervous*, *absorbent*, *respiratory*, and *digestive systems*, is nearly balanced by a decrease in those of the *circulatory*, *urinary*, and *cutaneous systems.*

CONDITIONS, &c.—*Debility.*—The rate of admissions on account of this condition, exceeds that of 1873 by 11·3 per 1,000 of the strength, and that of the average by nearly as much ; the greater prevalence of fever in the year, accounts for the excess of admissions on account of debility.

POISONS.—The rate of admissions for disease in this class caused by drink, is less than the half of that of the preceding year.

2.—BLACK TROOPS.

The Black Troops stationed in the West India Command in 1874, for the whole year, were portions—being the depôts—of the 1st and 2nd West India Regiments, then on service in the Gold Coast ; a corps of Military Labourers, and the 2nd West India Regiment which returned from field service on the 7th of May.

The stations occupied were Barbados and Demerara, Jamaica, Honduras and Bahamas.

The average annual strength was 1,028 ; the admissions into hospital were 1,290 ; the deaths 23 ; the rates given by these numbers are, for admissions, 1254·8 ; for deaths, 22·37 per 1,000 of the strength ; both exceed the corresponding rates of the preceding year.

The comparative prevalence of disease at the different stations in the Command, occupied during the year is shewn in the following Table :—

Windward and Leeward Command.

Stations.	Strength.	Admissions.	Deaths.	Ratio per 1,000 of Strength.	
				Admissions.	Died.
Windward and Leeward Islands and Demerara	432	416	8	963	18·52
Jamaica	308	502	12	1,629	38·96
Bahamas	200	115	1	575	5·00
Honduras..	88	257	2	2,920	22·72

The classes and orders of diseases, by which the admissions and deaths were caused are shewn in the following Table :—

Orders.	Black Troops. Diseases.	1874. Strength 1,028.		1874. Ratio per 1,000.		1869–73. Ratio per 1,000.	
		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*						
1	Febrile Group	269	1	261·6	·97	163·1	2·01
2	Constitutional „	277	4	269·4	3·89	236·7	9·24
	II. *Local Diseases.*						
	Diseases of the—						
1	Nervous System	20	2	19·5	1·95	20·9	1·47
2	Eye	20	..	19·5	..	16·9	..
3	Ear	4	..	3·9	..	1·7	..
4	Nose	1	..	1·0	..	1·1	..
5	Circulatory System	8	3	7·8	2·92	8·7	1·74
6	Absorbent „	46	..	44·8	..	19·7	..
8	Respiratory „	73	8	71·0	7·78	60·4	2·14
9	Digestive „	127	2	123·5	1·95	86·9	1·34
10	Urinary „	128	..	124·5	..	137·3	·80
11	Generative „	29	..	28·2	..	19·7	..
12	Organs of Locomotion	13	..	12·6	..	10·4	·54
13	Cellular Tissue	34	..	33·1	..	18·5	..
14	Cutaneous System	121	..	117·7	..	77·3	..
	III. *Conditions, &c.*						
	Debility	6	1	5·8	·97	4·3	..
	IV. *Poisons*	2	..	1·9	..	3·3	..
	V. *Injuries.*						
1	Battle	..	..	..	..	1·7	·27
2	Accidental	112	..	109·0	..	97·8	·54
4	Self Inflicted	..	1	..	·97	·1	·67
	VI. *Surgical Operations.*	..	..	..	..	1·3	..
	No appreciable disease	..	1	..	·97	1·2	..
	Total	1,290	23	1254·8	22·37	989·0	20·76
	Average of 10 years, 1864-73..	..	..	1058·39	22·67	..	..

Vindward nd Leeward Command.

GENERAL DISEASES.—The rate of admissions a little exceeds that of the previous year; the rate of deaths is nearly a half less than the corresponding one of 1873. The increase of admissions occurred in both of the groups.

The following Table shows the admissions and deaths, from the principal diseases of this class:—

Black Troops.	1874.				1869–73.	
	Strength 1,028.		Ratio per 1,000.		Ratio per 1,000.	
General Diseases—	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile Group—						
Eruptive Fevers	39	..	37·9	..	1·1	..
Continued „	107	..	104·1	..	39·5	·80
Yellow Fever	2	..	1·9	..	·5	·14
Paroxysmal „	119	1	115·8	·97	114·1	1·07
Influenza	..	..	..	..	1·8	..
Erysipelas	..	..	..	..	·1	..
Other diseases of this group	2	..	1·9	..	6·0	..
Total	269	1	261·6	·97	163·1	2·01
Constitutional Group—						
Rheumatism	98	..	95·3	..	65·1	·14
Syphilis	153	..	148·8	..	142·2	·26
Scrofula, Phthisis, &c.	21	4	20·4	3·89	27·3	8·70
Scurvy and Purpura	1	..	1·0	..	·1	..
Anæmia	4	..	3·9	..	·9	..
Other Diseases	..	..	..	..	1·1	·14
Total	277	4	269·4	3·89	236·7	9·24

Eruptive Fevers.—The admissions under this head comprise two from small-pox, two from chicken-pox, and 35 from measles; those from small-pox occurred in the head-quarters of the 2nd West India Regiment at Jamaica, where at the time a severe and widely spread epidemic of the disease—brought into the island by refugees from Cuba—prevailed; the Medical Officer refers to the fact of the small number of attacks amongst a considerable body of soldiers, and justly considers it as a proof of the efficiency of the vaccination arrangements in the corps. All the cases of measles occurred at Jamaica, where the disease was epidemic.

Continued Fevers.—The prevalence of fevers of this nature was much greater than in 1873, and greater also than the average, but no deaths followed attacks.

Yellow Fever.—Two admissions from this disease are returned as having occurred in the 9th week of the 3rd quarter, in a detachment of the 2nd West India Regiment stationed at Corozal in Honduras; fever of a malarious origin was very prevalent at the time amongst the civil population, as well as amongst the men of the detachment; the symptoms noted by the Medical Officer were not identical in both cases; fever, with much depression, great irritability of stomach, intense orbital, and epigastric pain, yellowness of conjunctivæ, hæmorrhage from the bowels and bladder, much albumen in the urine, were the distinctive symptoms in one case; certain significant symptoms were superadded in the other case—namely, vomiting a large quantity of black fluid, in which a jelly-like substance subsided, and suppression of urine; when this secretion re-appeared it contained albumen. Both of the men attacked recovered.

Paroxysmal Fevers.—There is a considerable decrease in the proportion of admissions on that of the preceding year. *Windward and Leeward Command.*

Rheumatism.—The number of admissions is exactly the same as that of 1873, but the proportion is higher, and it also considerably exceeds that of the average.

Syphilis.—The rate of admissions exceeds that of 1873 by 21·3 per 1,000 men, and is a little in excess of that of the average.

Scrofula, Phthisis, &c.—The prevalence was less both as compared with that of the preceding year, and with the average; the mortality was also in a lower proportion than that of both periods. The rate of admissions and of deaths, from diseases of this nature, was more than twice that of the White Troops in the Command.

LOCAL DISEASES.—*Respiratory System.*—The proportion of admissions for diseases of this nature is a little lower than that of the previous year, but it is one-seventh higher than that of the average; the proportion of deaths is greatly in excess of that of both periods. Of the eight deaths, six were due to pneumonia, and five of them occurred in the head-quarters of the 2nd West India Regiment, at Up Park Camp in Jamaica, between the months of May and September; a man of the 1st West India Regiment also died there of the same disease in the beginning of September. The unusual occurrence of so many deaths from this particular disease in a short period, and chiefly in one body of men, of itself raises a suspicion that the pneumonia observed in each of the fatal cases may have been not a primary affection, but one intercurrent in the course of some other illness. The men of the Head-Quarters of the 2nd West India Regiment landed at Jamaica—returning from service on the coast of Africa—on May 19th. The Medical Officer reports that 21 of the deaths which occurred on the passage were from pneumonia, but he does not state that any connection between the fatal illnesses occurring at Up Park Camp in the men who landed from the ship, and the illness causing the deaths on the passage, was suspected. In the instances in which *post-mortem* examinations were made it is stated that no appearances were found worthy of special remark.

Diseases of the Digestive System, were in a greater proportionate prevalence than in the preceding year, owing to the comparative frequency of dysentery and diarrhœa, amongst the men who had returned from service on the Gold Coast.

SANITARY REPORT.

The Senior Medical Officer remarks:—"Referring to the several reports of the Medical Officers in charge of stations, I find that Surgeon-Major Prescott states that the general health of the troops stationed at Up Park Camp has been good, and that the deaths which have taken place have been chiefly amonst soldiers whose health was impaired by war service and subsequent exposure on board ship. *Jamaica*

"Measles of a mild character appeared amongst the troops (Black) and a few cases of small-pox were admitted, but owing to the precautions carried out, no spread of the disease occurred, although the disease was very prevalent in and around the city of Kingston. The barracks and hospital are large and airy and meet all requirements.

"The water supply, which is derived from the Hope river, is ample, and the quality reported 'fair.' Large filtering beds are requisite; their construction is, I am informed, under the consideration of the Royal Engineer Department.

"The latrines, which are on the dry earth system, and the urinals and drains, are well looked after."

Newcastle.—In his Annual Sanitary Report, Surgeon-Major Thornhill states:—"The troops at this station suffered severely during a portion of the year from enteric fever. The disease must be, in a great measure, due to the general insanitary condition of the station, as Newcastle, like most other hill stations in tropical countries, must have become fouled from long occupation and a progressive accumulation of filth in and around the neigh-

Jamaica.

bouring gullies and ravines. The station during part of the year was much overcrowded, and several men were in consequence placed under canvas; subsequently, a detachment was moved down to Up Park Camp, and remained there until the departure of the 97th Regiment for Bermuda, in December 1874."

All the cases of enteric fever with two exceptions occurred amongst the young soldiers of the 97th Regiment, shortly after their arrival at Newcastle.

"The latrines and urinals have been constantly reported upon during the year, and the latrines, which are on the dry-earth system, frequently get out of order and work improperly in consequence of the earth not being sufficiently pulverised, and not having been dried enough. The surface drains on the western side of the hill are objectionable on sanitary grounds, and should be carried further down the gullies so as to prevent the accumulation of filth, &c. on the sides of the hill, which at certain times emit a disgusting odour. The water supply has been ample, and its quality, as a rule, fair, but after heavy rains it is found to contain a large amount of organic matter and other impurities, which would be obviated if filtering beds were constructed. The conservancy establishment at Newcastle might with advantage be increased."

Port Royal.—Surgeon-Major Hoysted states that the health of the troops was good on the whole. Four deaths occurred in all,—one, a case of enteric fever, in a soldier of 98th Regiment, who came down from Newcastle, and died 12 days after arrival. During a portion of the year yellow fever was prevalent among the men of the Royal Navy, but did not spread to the troops in garrison. The barracks are reported to be in bad repair, and the sanitary condition in the vicinity to be very indifferent. Numerous sanitary improvements have been effected at the various stations during the year.

At *Newcastle*, surface drains are in course of reconstruction; the water supply has been increased; a cook-house has been constructed for soldiers on "Farm Ridge," and fitted up with Warren's apparatus; a cook-house has also been constructed for married soldiers on "Farm Ridge," and another for Royal Artillery; latrines on Moule's earth system have been constructed for officers' quarters; and several other alterations and improvements have been effected, and others are in progress.

Section II.

On the Extent of Invaliding.

Windward and Leeward Command and Western Africa.

48 Non-commissioned officers and men of the White Troops were invalided home; and 18 invalids from the West India Command, were finally discharged the service at Netley, during the year.

Of the Black Troops serving in the West India, and in the West Africa Settlements Command, 52 were invalided during the year.

The classes of diseases by which the invaliding was caused are shewn in the following Table:—

Windward and Leeward Command, and Western Africa.

	White Troops.			Black Troops.
	Windward and Leeward Command.		West Africa.	West Indies and Western Africa.
Mean Strength	1,713.		..	1,822.
Classes of Disabilities.	Invalids sent Home.	Discharged as Invalids at Netley.	Discharged at Netley.	Discharged as Invalids in the Colonies
I. *General Diseases.*				
Febrile Group	1	..	1	..
Constitutional Group.. ..	16	4	4	26
II. *Local Diseases.*				
Diseases of the—				
Nervous System	8	3	..	3
Eye	..	..	..	2
Nose	..	..	..	1
Ear	3	..	..	..
Circulatory System	3	4	1	2
Respiratory "	3	1	..	2
Digestive "	1	1	6	3
Urinary "	..	..	..	1
Generative "	1	..	..	..
Locomotive "	..	1	..	2
Cutaneous "	..	..	1	2
III. *Debility*	10	2	2	4
V. *Injuries.*				
Battle	..	..	5	..
Accidental	2	2	..	4
Surgical Operations	..	..	1	..
General Total	48	18	21	52
Ratio per 1,000 of Mean Strength .. 1874 ..	28·62	10·51	..	28·54
Ratio per 1,000 of Mean Strength .. 1864-73	31·15	15·47	..	15·7

Of the white non-commissioned officers and men invalided during the period from the West Africa Settlements' Command, 21 were finally discharged the service at Netley, on account of disabilities contracted when serving with the Expeditionary Force. The classes and orders of the diseases, necessitating the invaliding of the men, are shewn in the Table; but the invaliding at Netley does not represent the whole of that due to field service in Africa, as part of it took place directly from the regiments after their return, without the men having been sent to Netley.

Section III.

Mean Daily Sick.

The average number of White soldiers constantly sick in the West India Command was 79·74, and of Black soldiers, 72·52.

The usual information calculated from these numbers is given in the following Table:—

Windward and Leeward Command.

Constantly Sick.		79·74	72·52
		White Troops.	Black Troops.
Ratio per 1,000 constantly Sick.	1874 ..	46·55	70·54
	1864–73 ..	47·65	57.14
		days.	days.
Mean sick time to each Soldier.	1874 ..	16·91	25·75
	1864–73 ..	17·39	20·85
Average duration of the Cases.	1874 ..	14·43	20·51
	1864–73 ..	16·29	19·70

Section IV.

Influence of Age on Mortality.

The following Table shews the influence of age, in quinquennial periods, in relation to mortality in the White Troops serving in the West India Command :—

	Under 20.		20 and under 25.		25 and under 30.		30 and under 35.		35 and under 40.		40 and upwards.	
	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.
	85	2	864	15	301	5	291	3	190	1	19	3
Ratio of deaths per 1,000 of strength ..	23·53		17·36		16·61		10·31		5·26		157·9	

The selection of the young as the victims of the epidemic of enteric fever in Newcastle, Jamaica, is illustrated in the table.

VI.—ON THE HEALTH OF THE TROOPS SERVING IN THE WEST AFRICA SETTLEMENTS COMMAND.

Section I.

Sickness and Mortality.

STATISTICAL REPORT.

1.—WHITE TROOPS.

West Africa.

Ordinarily, with the exception of a few staff serjeants attached to West India Regiments, no white non-commissioned officers or men. serve in the Command, but in the first quarter of 1874 the operations carried out by an expeditionary force involved the employment of a body of White Troops, consisting of three infantry regiments, of detachments of Royal Artillery, and of Royal Engineers, together with details of Staff, and of Departmental Corps. The statistics of the sickness, and mortality of the Force during the whole time it operated in the field in the Gold Coast Protectorate, and in the invaded territory of Ashanti, having already been given in the Report for 1873, the repetition now of a fragment of the information then furnished is unnecessary.

2.—BLACK TROOPS.

The Black Troops serving in the Command during the year, consisted of regular, and of irregular troops, but having regard to the exceptional and temporary nature of the employment of the latter, solely in connection with the campaign, at the end of which they were immediately disbanded, the statistics of their sickness during the short time they served, which have already been given in the statistical history of the campaign, need not be repeated. The regular troops consisted of the 1st and 2nd West India Regiments, the 1st, for the whole year, and the 2nd, from the beginning of the year until its embarkation on the 19th of March, for its return to the West Indies. Portions of both of the regiments were employed in the field in the first quarter of the year, and the health of the men was thus to a certain extent adversely influenced, but the greater part of the service of the Black Troops, after the return of the Expeditionary Force, was that of ordinary garrison duty, the stations occupied being the same as in former years,—Sierra Leone in one part of the Command, Cape Coast, Elmina, Secondee, Dixcove, Axim, and Accra in the Gold Coast territory, and Lagos, in the most southern part of the Command.

The average strength of the troops during the year was 794; the admissions were 1,469, the deaths 28; the rates given by those numbers are—for admissions 1850·, and for deaths 35·27 per 1,000 of the strength; both are lower than the corresponding rates of the preceding year; the death rate is also lower than that of the average of a period of ten years.

The following Table shews the admissions and deaths in each class and order of disease:—

West Africa.

Order.	Black Troops. Diseases.	1874. Mean Strength, 794. Admitted.	Died.	1874. Ratio per 1,000. Admitted.	Died.	1869–73. Ratio per 1,000. Admitted.	Died.
	I. *General Diseases*						
1	Febrile Group	532	5	670·0	6·30	512·0	7·24
2	Constitutional ,, ...	174	5	219·2	6·30	236·6	6·86
	II. *Local Diseases.*						
	Diseases of the—						
1	Nervous System	25	1	31·5	1·26	12·2	3·05
2	Eye	17	..	21·4	..	22·1	..
3	Ear	1	..	1·3	..	2·7	..
4	Nose	..	..	..	..	1·1	..
5	Circulatory System ..	8	1	10·1	1·26	6·5	1·14
6	Absorbent ,, ..	17	..	21·4	..	15·2	..
8	Respiratory ,, ..	119	4	149·7	5·04	82·3	4·57
9	Digestive ,, ..	229	9	288·4	11·33	208·4	9·91
10	Urinary ,, ..	79	..	99·5	..	118·8	1·14
11	Generative ,, ..	14	..	17·6	..	27·8	..
12	Organs of Locomotion ..	16	..	20·2	..	13·7	·76
13	Cellular Tissue	27	..	34·0	..	58·3	·76
14	Cutaneous System ..	111	..	139·8	..	136·8	..
	III. *Conditions, &c.*						
	Debility	28	..	35·3	..	6·5	..
	IV. *Poisons.*	..	..	..	..	1·1	..
	V. *Injuries.*						
1	Battle	11	1	13·9	1·26	22·5	2·29
2	Accidental	57	2	71·8	2·52	90·3	·76
4	Self-inflicted	..	..	..	..	1·5	..
6	Judicial	3	..	3·8	..	..	..
	IV. *Surgical Operations* ..	..	..	..	..	·7	..
	Not stated	..	..	..	..	1·9	..
	No appreciable disease ..	1	..	1·3	..	..	..
	Total	1,469	28	1850·2	35·27	1579·0	38·48
	Average of 10 years 1864-73	..	..	1504·7	40·08	..	..

General Diseases.—The following Table shews the admissions and deaths from the principal diseases in this class :—

West Africa.

Black Troops.			Ratio per 1,000 of Mean Strength, 1874.	
General Diseass.	Admitted.	Died.	Admitted.	Died.
Febrile Group—				
Eruptive Fevers..	4	..	5·0	..
Continued „	8	..	10·0	..
Paroxysmal „	520	5	655·0	6·30
Total	532	5	670·0	6·30
Constitutional Group—				
Rheumatism	68	..	85·6	..
Syphilis	88	..	110·8	..
Scrofula, Phthisis., &c...	12	5	15·1	6·30
Anæmia	4	..	5·0	..
Other Diseases	2	..	2·5	..
Total	174	5	219·0	6·30

Eruptive Fevers.—Three admissions on account of small-pox, which prevailed epidemically among the civil population, and one after vaccination, comprise those due to fevers of this nature in the year.

Continued Fevers, caused only 8 admissions.

Paroxysmal Fevers.—The proportion of admissions, is 155·5 per 1,000 men lower than that of the preceding year, but this decrease is accompanied by a more than fourfold rate of mortality; all the deaths excepting one occurred during the period the troops were in the field.

Rheumatism.—A large decrease in the rate of admissions, on that of the preceding year is accounted for by the lesser exposure of the men during the year.

Syphilis.—The proportion of admissions is 67·2 per 1,000 higher than in the preceding year, the greater part of which the troops were in the field; in the present year they were in quarters for three parts of the year.

LOCAL DISEASES.—*Diseases of the Nervous System*, were in greater prevalence than in the preceding year, but were much less fatal; the number of admissions from epilepsy, and neuralgia, principally contributed to the first result, the fewer attacks due to exposure to the sun, to the second.

Diseases of the Respiratory System, were a little more prevalent, but are in a lower rate of fatality than in 1873.

Diseases of the Digestive System.—The rate of admissions is 174·8, and that of deaths is 11·23 per 1,000 men lower than in the preceding year. The diseases in which the decrease in both rates occur, are dysentery and diarrhœa, and the shorter exposure to the deteriorating influences of field service accounts for the decrease.

SANITARY REPORT.

Surgeon-Major Johnston reports that the following sanitary improvements have taken place during the year at Sierra Leone:—

Sierra Leone.—A new bath-room has been constructed at the Military Hospital and water laid on by pipes from the reservoir at Tower Hill Barracks. Water from the same source had also been laid on to each of the officers' quarters. A swimming bath is in course of construction at Tower Hill Barracks, which will be a great boon. Dry earth conservancy has been introduced at the hospital at this station.

West Africa.

The Gold Coast.—The following sanitary improvements have been effected at Cape Coast Castle during the year:—The permanent occupation of Connor's Hill as a sanitarium, which, being higher than the castle, is much less damp, and the air is purer. The accommodation for the men on this hill consists of detached huts recently erected, and affording ample cubic space. There were formerly but two huts, and available only as a sanitarium for sick officers. This sanitarium has long been considered a desideratum. The town of Cape Coast in the immediate vicinity of the castle has been much improved in a sanitary point of view. Captain Strachan, Governor of the Gold Coast, appointed a Sanitary Committee, including the Senior Medical Officer of the Gold Coast, Dr. Elliot, and many sanitary improvements have been carried out in the town, which used to be in a most disgraceful state. Latrines have been built in different parts of the town for the use of the natives. Dry earth conservancy has been introduced into the castle and military station.

VII.—ON THE HEALTH OF THE TROOPS SERVING AT THE CAPE OF GOOD HOPE AND ST. HELENA.

Section I.

Sickness and Mortality.

STATISTICAL REPORT.

Cape of Good Hope and St. Helena.

The troops serving in the Cape division of the Command, in 1874 were the 5th Battery 2nd Brigade Royal Artillery, the Head-Quarters and one wing of the 32nd Regiment, the 75th, and the 86th Regiments, together with a few men of the Royal Engineers, Garrison Staff, Army Service, and Army Hospital Corps. The troops stationed at St. Helena were the 2nd Battery 2nd Brigade Royal Artillery, the 7th Company of Royal Engineers, and a few Non-Commissioned Officers and Men of the Garrison Staff, and of Departmental Corps.

The only change in the composition of the force during the year other than that caused by the arrival of drafts, and the sending away of invalids, was the replacement, in the months of July, and August, of the companies of the 32nd Regiment serving in the Command, by others of the same corps from Mauritius. The stations in the Command occupied were Cape Town, by the Royal Artillery, and the 86th Regiment; King William's Town, by the 32nd and 75th Regiments, having detachments at East London and Fort Murray; Natal by a wing of the 75th Regiment with detachments at D'Urban, and Estcourt.

The average strength of the troops in the whole Command, in the year, was 2,431; the admissions into hospital were 2,202; the deaths, including those of five invalids, were 35. The admissions were thus in the rate of 905·8, and the deaths, in that of 14·40 per 1,000 of the mean annual strength; whilst the former only a little exceeds the corresponding rate of the preceding year, the latter is more than double the rate of that year.

The following Table shews the admissions and deaths in the different classes and orders of diseases:—

Cape of Goo
Hope and
St. Helena.

Order.	Diseases.	1874.						1869–73.	
		Mean Strength, 2,431.						Annual Ratio per 1,000 of Strength.	
			Deaths.			Ratio per 1,000			
		Admitted.	In Command.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group ..	281	1	..	1	115·6	·41	106·4	·74
2	Constitutional „ ..	359	3	2	5	147·6	2·06	197·3	2·64
	II. *Local Diseases.*								
	Diseases of the—								
1	Nervous system	41	2	3	5	16·9	2·06	12·0	1·22
2	Eye	131	..	..	..	53·9	..	40·1	..
3	Ear	17	..	..	..	7·0	..	4·1	..
4	Nose	..	..	..	..	..	..	·4	..
5	Circulatory system ..	35	9	..	9	14·4	3·70	12·9	1·35
6	Absorbent „ ..	39	..	..	..	16·0	..	17·6	..
8	Respiratory „ ..	82	3	..	3	33·7	1·23	34·9	·74
9	Digestive „ ..	454	6	..	6	186·8	2·47	146·0	1·69
10	Urinary „ ..	146	..	..	..	60·1	..	191·7	·14
11	Generative „ ..	29	..	..	..	11·9	..	15·4	..
12	Organs of Locomotion ..	6	..	..	..	2·5	..	5·8	·11
13	Cellular Tissue	70	..	..	..	28·8	..	24·1	..
14	Cutaneous system ..	165	..	..	..	67·9	..	89·2	..
	III. *Conditions, &c.*								
	Debility	13	..	..	..	5·3	..	7·6	·20
	IV. *Poisons* ..	6	..	..	..	2·5	..	8·8	·40
	V. *Injuries.*								
2	Accidental	324	5	..	5	133·3	2·06	125·0	1·08
3	Homicidal	1	..	..	..	·4	..	..	·07
4	Self-inflicted	..	1	..	1	..	·41	·3	·20
	VI. *Surgical Operations*	1	..	..	..	·4	..	·5	..
	No appreciable disease ..	2	..	..	..	8	..	1·2	..
	Total	2,202	30	5	35	905·8	14·40	1041·3	10·61
	Average of 10 years, 1864-73	..	..	..	..	1042·6	10·56	..	..

General Diseases.—The proportion of admissions in the class is nearly the same as that of the preceding year, but there is a different distribution of them between the two orders composing the class, in the present year diseases of the febrile order, are in a greater, and those of the constitutional order, are in a lower proportion than in 1873.

The following Table shews the admissions and deaths from the principal diseases of this class:—

Cape of Good Hope and St. Helena.

General Diseases.	1874.						Annual Ratio per 1,000 of Strength.	
	Mean Strength, 2,431.							
		Deaths.			Ratio per 1,000			
	Admitted.	In Command.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
Febrile—								
Eruptive Fevers	7	..	..	..	2·9	..	1·4	..
Continued „	75	1	..	1	30·9	·41	45·4	·34
Paroxysmal „	56	..	..	..	23·0	..	34·3	·34
Influenza	114	..	..	..	46·9	..	21·6	..
Erysipelas	28	..	..	..	11·5	..	2·6	·07
Other Diseases of this Group ..	1	..	..	..	·4	..	1·1	..
Total	281	1	..	1	115·6	·41	106·4	·75
Constitutional—								
Rheumatism	125	..	..	..	51·4	..	38·3	·07
Syphilis	206	..	1	1	84·7	·41	147·3	·20
Scrofula, Phthisis, &c.	18	3	1	4	7·4	1·6	9·6	2·37
Scurvy and Purpura	..	..	..	..	..	..	·1	..
Anæmia	8	..	..	..	3·3	..	·9	..
Other Diseases of this Group ..	2	..	..	..	·8	..	1·1	..
Total	359	3	2	5	147·6	2·06	197·3	2·64

Eruptive Fevers.—There were 7 admissions in this group of fevers, all due to measles; with the exception of one in the Royal Artillery, they occurred in the 75th Regiment at King William's Town.

Continued Fevers.—The rate of admissions is a fourth lower than that of the preceding year; a death returned as from simple continued fever, was that of a man of the 75th Regiment, stationed at Estcourt; in the report of the case it is stated that "the disease assumed a typhoid type."

Enteric Fever.—One admission for this disease took place at St. Helena; no particulars respecting it appear in the report from that section of the Command.

Paroxysmal Fevers.—The prevalence of fevers of this nature was slightly greater than in the preceding year, but was considerably less than the average; the men of the Royal Artillery, suffered proportionately more from paroxysmal fevers than the men of the other corps.

Influenza.—Under this head 114 admissions are returned, 78 of them being in the 86th Regiment, in which the disease was epidemic in the last quarter of the year. In the Report of the Medical Officer no description of the assemblage of symptoms constituting the disease is given, but it is stated by the Principal Medical Officer, that influenza was very prevalent amongst the civil population at the same time, and that erysipelas and sore throat appeared (epidemically) in the same months. At Cape Town, no cases of influenza were received except from the Main Barracks; the men quartered in the Castle, a few yards off, escaped attack. After the troops in the Main Barracks were encamped, the disease disappeared.

Erysipelas.—The rate of prevalence of this disease was four times greater than that of the preceding year, and also than that of the average; of the 28 admissions, 17 were in the 86th Regiment at Cape Town, they occurred in the month of October, when influenza, as stated above, was also epidemic in the regiment. No mention is made of local conditions of unhealthiness in the barracks, from which the cases of erysipelas in the 86th Regiment were received.

Cape of Good Hope and St. Helena.

Rheumatism.—The rate of admissions considerably exceeds that of the preceding year, and it is also slightly in excess of the average; the prevalence of this disease was proportionately greatest in the Royal Artillery and in the 86th Regiment, both stationed at Cape Town.

Syphilis.—A considerable reduction (29·3 per 1,000) in the rate of admissions for diseases of this nature, on the proportion for the preceding year may in part, be due to the influence of the Royal Warrant, directing the stoppage of the pay of soldiers when in hospital on account of primary attacks of syphilis, but opinion is not unanimous amongst Medical Officers on this subject. As in former years, the prevalence of syphilis at Cape Town was much greater than at any other station in the Command, the proportion of admissions per 1,000 of the strength there being 145, whilst at St. Helena it is only 24; one man of the 86th Regiment, invalided on account of this disease, died at sea.

Scrofula, Phthisis, &c.—With a lower rate of prevalence than in the preceding year the rate of mortality from diseases in this group is higher; both however are below the average.

Local Diseases.—*Diseases of the Eye.*—The rate of admissions is nearly double that of the previous year, and it also considerably exceeds that of the average, this increase is owing to the outbreak of epidemic conjunctivitis in the first quarter of the year, in the wing of the 75th Regiment, stationed at Natal.

Circulatory System.—The prevalence of diseases in this group was lower than in 1873, but the rate of deaths is higher; 6, of the 9 deaths were due to aneurism.

Digestive System.—The rate of admissions exceeds that of the preceding year by 50·7 per 1,000 men, and the rate of deaths exceeds that of the same period by 2·07, both are also much higher than those of the average. The chief cause of this excess was the unusual prevalence of tonsillitis, of dysentery, and (to a lesser degree) of diarrhœa; the first-named disease prevailed in the 86th Regiment at Cape Town, and in the 75th Regiment at King William's Town; dysentery, and diarrhœa, were comparatively most frequent in the 86th Regiment, and least so in the 32nd Regiment, quartered in King William's Town, though many of the men had served for part of the year in the Mauritius.

Urinary System.—A great reduction—more than half of the whole—on the rate of the preceding year, is due to the decreased prevalence of gonorrhœa.

Poisons.—There is a slight increase in the rate of admissions on that of the preceding year, but the proportion is much below the average, and no deaths were due to alcoholic poisoning.

Injuries.—*Accidental Injuries*, occurred in an increased proportion on that of the previous year; two of the deaths were due to drowning, two to multiple injury, and one to fracture of the spine.

SANITARY REPORT

Deputy Surgeon-General Heffernan reports that the sanitary state of the Command during the year 1874 has been good. A few sanitary defects have been noticed, some of which have been rectified, and others noted for future action. The existing sanitary defects are much the same as those formerly noticed, viz.:—An objectionable state of the system of conservancy and the latrines generally. Deficient hospital accommodation on the Eastern Frontier at King Williams Town. Insufficient barrack accommodation in Natal at Pietermaritzberg, as well as deficiency of hospital accommodation. Occasional difficulties about the drainage from the town of Cape Town affecting the state of the sea beach in the neighbourhood of the Castle and Military Hospital.

Section II.

On the Extent of Invaliding.

ape of Good ope and t. Helena. Forty-four invalids were sent home, and 29 invalids from the Command were finally discharged the service at Netley during the year, being in the rates of 18·10 and of 11·30 per 1,000 of the strength respectively.

The Classes of disabilities for which the men were invalided are detailed in the following summary :—

Disabilities.	Invalids sent to England from Cape and St. Helena.	Invalids Discharged the Service at Netley.
I. *General Diseases.*		
Constitutional Group	22	12
II. *Local Diseases.*		
Diseases of the—		
Nervous System	3	2
Eye	3	3
Ear	3	3
Circulatory System	7	5
Digestive „	2	1
Urinary „	..	1
Organs of Locomotion	1	1
Cellular Tissue	1	..
Cutaneous System	1	1
V. *Injuries.*		
Accidental..	1	..
Total	44	29
Ratio per 1,000 of Mean Strength.. .. 1874 ..	18·10	11·93
Ratio per 1,000 of Mean Strength.. .. 1864–73 ..	30·24	20·60

The proportions of both primary, and final invaliding, are lower than the corresponding ones of the preceding year, the reduction in both cases occurs in the invaliding due to diseases of the circulatory system.

Section III.

Mean Daily Sick.

The average number constantly sick, in the whole Command, during the year was 106, being in the proportion of 43·61 per 1,000, shewing a moderate reduction on that of the preceding year.

The following Table gives the usual information calculated from the above number :—

	1874.	1864–73.
Ratio per 1,000 of Strength constantly Sick..	43·61	51·81
	days.	days.
Average Sick time to each Soldier	15·92	18·91
Average duration of cases of Sickness	17·58	18·14

Section IV.

Influence of the Age on Mortality.

Cape of Good Hope and St. Helena.

The following Table shews the influence of age, in quinquennial periods, on the mortality amongst the troops serving at the Cape of Good Hope, and at St. Helena, in the year :—

Corps.	Under 20.		20 and under 25.		25 and under 30.		30 and under 35.		35 and under 40.		40 and upwards.	
	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.
Royal Artillery	3	...	78	1	59	...	46	...	28	2	7	...
Royal Engineers...	1	...	16	...	25	...	13	...	14	1	3	...
32nd Foot	46	...	193	...	138	3	68	...	52	2	12	1
75th „	29	...	220	3	270	1	151	4	92	1	23	1
86th „	53	1	245	2	178	2	172	3	71	1	11	1
Total	132	1	752	6	670	6	450	7	257	7	56	3
Ratio per 1,000 of Mean Strength... 1874 ...	7·58		7·98		8·96		15·53		27·24		53·57	
Ratio per 1,000 of Mean Strength... 1864–73	·83		5·39		11·25		15·19		22·82		26·00	

VIII.—ON THE HEALTH OF THE TROOPS SERVING IN THE ISLAND OF MAURITIUS.

Section I.

Sickness and Mortality.

STATISTICAL REPORT.

Mauritius.

The troops stationed in Mauritius, during the year were the 4th Battery 2nd Brigade Royal Artillery, and a wing of the 32nd Foot, but the composition of the wing was not the same throughout the year, in July the companies which had until then served at Mauritius, were withdrawn and replaced by other companies from the Cape ; a few non-commissioned officers of Garrison Staff, were also quartered in Mauritius, in 1874.

The average strength of the force during the year was 418 ; the admission into hospital, were 518, and the deaths were 7 ; the rate of admissions wa therefore 1239·, and that of deaths 16·74 per 1,000 of the mean annua strength.

The following Table shews the admissions, and deaths, from the variou classes and orders of diseases :—

Mauritius.

Order.	Diseases.	Strength, 418.				1874.		1869–73.	
			Died.			Ratio per 1,000.		Ratio per 1,000.	
		Admitted.	At Mauritius.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group ..	239	..	..	..	571·8	..	838·9	3·41
2	Constitutional „ ..	34	2	..	2	81·3	4·78	116·7	3·03
	II. *Local Diseases.*								
	Diseases of the—								
1	Nervous System ..	4	..	..	..	9·6	..	9·5	1·52
2	Eye	2	..	..	..	4·8	..	12·5	..
3	Ear	6	..	..	..	14·3	..	7·5	..
5	Circulatory System ..	5	2	..	2	12·0	4·78	7·6	1·89
6	Absorbent „ ..	5	..	..	..	12·0	..	11·3	..
8	Respiratory „ ..	4	..	..	..	9·6	..	34·4	·38
9	Digestive „ ..	86	3	..	3	205·7	7·18	192·8	2·65
10	Urinary „ ..	6	..	..	..	14·3	..	64·8	..
11	Generative „ ..	6	..	..	..	14·3	..	12·9	..
12	Organs of Locomotion ..	2	..	..	..	4·8	..	3·3	..
13	Cellular Tissue	9	..	..	..	21·5	..	22·7	..
14	Cutaneous System ..	28	..	..	..	66·9	..	65·2	..
	III. *Conditions, &c.*								
	Debility	4	..	..	..	9·6	..	4·9	..
	IV. *Poisons* ..	11	..	..	..	26·3	..	17·5	1·52
	V. *Injuries.*								
2	Accidental	67	..	..	..	160·3	..	90·5	·76
4	Self-inflicted	..	..	..	..	..	..	..	·38
	VI. *Surgical Operations*	..	..	..	..	..	..	·3	..
	Total	518	7	..	7	1239·1	16·74	1513·3	15·54
	Average of 10 years, 1864–73	..	..	..	..	1309·7	17·85	..	..

The rates of both admissions, and deaths, are much lower than those of the preceding year, and are also a little lower than those of the average of the period of the ten years immediately preceding.

General Diseases, were much less prevalent than in 1873, the reduction extended to both orders in the class, but was greatest in the febrile group, the rate of admissions of which was considerably less than half that of the year preceding; no deaths were due to febrile diseases in the year under notice.

The following Table shews the admissions, and deaths, from the principal diseases of this class.

Mauritius.

General Diseases.	Strength, 418.		Annual Ratio per 1,000 of Mean Strength.			
			1874.		1869–73.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile—						
Eruptive Fevers	1	..	2·4	..	·4	..
Continued „	7	..	16·8	..	80·7	..
Paroxysmal „	229	..	547·8	..	750·0	3·03
Influenza	2	..	4·8	..	6·0	..
Erysipelas	..	..	..	..	1·1	..
Other Diseases of this group ..	..	..	..	..	·8	·38
Total ..	239	..	571·8	..	839·0	3·41
Constitutional—						
Rheumatism	21	..	50·2	..	36·8	..
Syphilis..	8	..	19·1	..	56·4	..
Scrofula, Phthisis, &c... ..	2	2	4·8	4·78	8·7	2·65
Scurvy and Purpura	..	..	..	..	·4	..
Anæmia..	3	..	7·2	..	14·4	·38
Total ..	34	2	81·3	4·78	116·7	3·03

Eruptive Fevers, are represented by a single admission only—one from chicken pox.

Continued Fevers.—The rate of admissions is less than one-tenth of that of 1873, the decrease being due to the disappearance of dengue fever.

Paroxysmal Fevers.—All the admissions returned under this head excepting one, were from ague; the rate of admissions is little more than the half of that of the preceding year, and is less than two-thirds of that of the average of the previous five years. Two causes have probably contributed to the large reduction in the prevalence of malarious fever in 1874, the first is the subsidence from its highest point of the epidemic activity which this disease took on in 1872, and the second is that a large part of the men serving in the Command, were changed about the middle of the year, and replaced by healthy men, who in 1874 had not felt the full influence of residence in a malarious country.

Rheumatism, prevailed more than in the preceding year, and was also in more than the average prevalence.

Syphilis.—The rate of admissions on account of this disease, is less than the half of that of the preceding year.

Scrofula, Phthisis, &c.—Of diseases of this nature there were only two admissions, both from phthisis.

Local Diseases.—Compared with the preceding year, there is an increase in the rate of admissions for diseases of the *digestive system*, in which group the proportion of deaths, is also higher, the last result being due to the occurrence of three fatal cases of hepatic disease. Diseases of the *urinary system* were less prevalent than in the year before, and were in much less than the average prevalence.

Poisons.—All the admissions returned in this class were due to delirium tremens, and alcohol poisoning.

Injuries.—There is a large increase in the rate of accidental injuries, both as compared with that of the preceding year, and with the average; the causes of the increased prevalence are not stated in the reports of the Medical Officers.

SANITARY REPORT.

Mauritius.

Surgeon-Major Small reports that the constitution of the force serving in this Command has been changed in the course of the year, by the arrival in July and August of a wing of the 32nd Regiment, accompanied by a few men of the Royal Artillery and Army Hospital Corps from England and the Cape, and the departure during the same months of the detachment 32nd Regiment, in garrison here since November 1871.

The season has been unusually cool with a greater rainfall, and consequently comparatively healthy; no epidemic occurred. Measles, which caused so many deaths in the island in 1873 and part of 1874, lost its epidemic character and became extinct in June.

No alteration has taken place in the several barracks and hospitals in the Command during the past year. Two sanitary services have been sanctioned, viz.—lining the huts at Curepipe Sanitarium, and improving the ventilation of the lower rooms of the stone barracks at Mahebourg.

It is evident that in a tropical climate troops should not be stationed where it can be avoided, in towns on the sea-board as at Port Louis, nor at the mouths of tidal rivers as at Mahebourg; I have in former reports advocated the extension of the present sanitarium at Curepipe for locating the greater number. It is now upwards of 8 years since the epidemic of malarial fever made its appearance in the island, and notwithstanding all that has been accomplished by the local authorities to improve its sanitary condition, it is questionable whether either Port Louis or Mahebourg will, so far as the evolution of malaria is concerned, become healthier. All classes of the population who had the means have left the sea-coast for the higher lands of the island.

Sections II *and* III.

On the Extent of Invaliding and Mean Daily Sick.

During the year eight invalids were sent to England, and one invalid from Mauritius was discharged the service at Netley. Five of the invalids were sent home for ague, one for encephalitis, and two for ulcers.

The average number constantly sick during the year was 14·98.

The following Table gives the usual information calculated from the above number:—

	1874.	1864–73.
Ratio per 1,000 of Strength constantly Sick	35·83	52·70
Mean Sick-Time to each Soldier	13·08	19·09
Average duration of cases of Disease	10·55	14·69

All the rates are materially lower than those of the preceding year, and greatly lower than the corresponding rates of the average of a period of ten years.

Section IV.

Influence of Age on the Mortality.

Owing to the changes in the troops serving in the Command it is not possible to afford the information usually given under this head.

IX.—ON THE HEALTH OF THE TROOPS SERVING IN THE ISLAND OF CEYLON.

Section I.
Sickness and Mortality.

STATISTICAL REPORT.

1.—WHITE TROOPS.

Ceylon.

THE troops stationed in the Command, were the Head-Quarters and 6th and 7th Batteries 2nd Brigade Royal Artillery, throughout the year; the 57th Foot from the 1st of February to the end of the year, the regiment having arrived in the Command from England; and the 73rd Foot from the 1st of January to the 2nd of February, when it left the Command. The average strength was 994; the admissions into hospital were 829; and the deaths, including one of an invalid at Netley, were 6. The rates per 1,000 of the strength represented by those numbers are—for admissions, 834·, and for deaths, 6·04; the first rate being nearly the same, whilst the latter is much lower than the corresponding rate of the preceding year.

The following Table shews the admissions and deaths from the different classes and orders of diseases:—

Orders.	White Troops ..	Strength, 994.				Annual Ratio per 1,000.			
			Died.			1874.		1869–73.	
	Diseases.	Admitted.	At Ceylon.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group ..	101	..	..	..	101·6	..	176·6	3·15
2	Constitutional ,, ..	86	..	1	1	86·5	1·00	132·7	3·15
	II. *Local Diseases.* Diseases of the—								
1	Nervous system ..	4	..	..	..	4·0	..	12·6	·84
2	Eye	26	..	..	..	26·2	..	33·2	..
3	Ear	5	..	..	..	5·0	..	12·0	..
4	Nose	1	..	..	..	1·0	..	..	..
5	Circulatory system ..	11	..	..	..	11·1	..	17·4	1·89
6	Absorbent ,, ..	19	..	..	..	19·1	..	38·4	..
8	Respiratory ,, ..	29	..	..	..	29·2	..	39·1	·63
9	Digestive ,, ..	191	2	..	2	192·1	2·02	295·7	7·77
10	Urinary ,, ..	64	..	..	..	64·3	..	88·6	·63
11	Generative ,, ..	12	..	..	..	12·1	..	24·8	..
12	Organs of Locomotion	1	..	..	..	1·0	..	5·5	..
13	Cellular Tissue ..	30	..	..	..	30·2	..	29·4	..
14	Cutaneous system ..	100	..	..	..	100·6	..	105·2	·21
	III. *Conditions, &c.* Debility	27	..	..	..	27·2	..	8·6	..
	IV. *Poisons* ..	11	..	..	..	11·1	..	20·4	·63
	V. *Injuries.*								
2	Accidental	110	3	..	3	110·7	3·02	128·1	·84
4	Self-inflicted	..	..	..	..	..	..	·2	·42
	VI. *Surgical Operations*	1	..	..	..	1·0	..	..	..
	No appreciable disease	..	..	..	..	..	..	2·1	..
	Total	829	5	1	6	834·0	6·04	1170·6	20·16
	Average of 10 years, 1864–73	..	..	..	..	1267·4	21·95	..	..

Ceylon.

General Diseases.—Compared with the preceding year, there is a slight increase in the rate of diseases in the febrile group, which is counterbalanced by a decrease in those of the constitutional group, so that the proportions in the class formed by the two groups, are the same for both years. There were no deaths from febrile diseases, and only one, from a disease of the constitutional group

The admissions and deaths from the principal diseases in this Class are shewn in the following Table :—

Diseases.	Admitted.	Died	Ratio per 1,000 of Mean Strength.			
			1874.		1869–73.	
			Admitted.	Died.	Admitted.	Died.
Febrile—						
Eruptive Fevers	..	..	..	..	·4	..
Continued „	68	..	68·4	..	51·2	1·05
Paroxysmal „	26	..	26·2	..	115·1	1·68
Cholera	1	..	1·0	..	·2	·21
Influenza	1	..	1·0	..	8 0	..
Erysipelas	4	..	4·0	..	1·1	..
Other diseases of this group.	1	..	1·0	..	·6	·21
Total	101	..	101·6	..	176·6	3·15
Constitutional—						
Rheumatism	30	..	30·2	..	24·8	..
Syphilis	39	..	39·2	..	83 8	·21
Scrofula, Phthisis, &c. ..	14	1	14·1	1·00	10·5	2·52
Scurvy and Purpura ..	1	..	1·0	..	·8	..
Anæmia	1	..	1·0	..	10·7	..
Other diseases of this group	1	..	1·0	..	2·1	·42
Total	86	1	86·5	1·00	132·7	3·15

There was no admission from any form of *eruptive fever.*

Continued fevers, were more prevalent than in 1873, a circumstance probably explained by the arrival of a fresh regiment in the Command, which would also account for the reduced prevalence of *paroxysmal fevers.*

Rheumatism, is in a higher rate than in the preceding year, but in both years the admissions were inconsiderable.

Syphilis.—The rate of admissions is much lower than that of 1873, and is less than the half of the corresponding rate of the average of the period of the five preceding years.

Scrofula, Phthisis, &c.—A largely increased prevalence in diseases of this group on that of 1873, is due to the number of admissions for phthisis; of the 14 admissions for this disease, 10 were in the 57th, a regiment in its first year of service in the Command; a comparatively severe outbreak of enteric fever took place in the 57th when stationed in Ireland in 1873, and perhaps there may have been an inter-dependence between the outbreak of enteric fever, and the increased prevalence of phthisis.

Local Diseases.—Compared with the previous year there are lower rates of admissions for diseases of the *nervous, circulatory, digestive,* and the *urinary* systems. Of the more important groups of diseases in this class the rates are higher than in the preceding year, in those of the *eye,* and of the *respiratory* system. The proportion of admissions for diseases of the *cutaneous* system, is also much higher.

Debility.—The proportion of admissions is more than twice that of the preceding year, and is still more greatly in excess of that of the average; 22, in the total of 27 admissions, are returned by the 57th Foot.

2.—Native Troops.

Ceylon.

The Ceylon Rifle Regiment, having been disbanded in the preceding year, the only native troops employed in the Command in 1874, consisted of a company of Gun Lascars, stationed in detachments at Colombo, Galle, and Trincomalee.

The average strength of the native troops was 88; the admissions into hospital were 32, and there was 1 death; the rates represented by these numbers are—of admissions 363, of deaths 11·36 per 1,000 of the strength.

The average of daily sick in hospital was ·65.

One-third of the admissions were on account of ague; the death which occurred is returned under this head.

SANITARY REPORT.

The Senior Medical Officer states that at all the stations in the island the medical officers report the sanitary state of the troops to have been satisfactory throughout the year.

"Beyond the completion of works in progress in the previous year, there has been no change in barracks.

"In Colombo the south block of new barracks has been finished, and was occupied on the arrival of the 57th Regiment at beginning of February. The last of the old barracks was removed in the early part of the year. The European troops have been accommodated in the new barracks, each block of which holds 100 men, and also in huts situated to the south of the barracks at a distance of about 100 yards. These huts are to be removed as soon as an additional block or blocks of barracks are constructed.

"The restricted space in the rear of these barracks renders the latrine accommodation limited. As the latrines are, however, to the lee side of the barracks in the direction of the prevailing wind, there is no nuisance from this source. In the arrangement for constructing the new block some increase will be made in the accommodation. The dry earth system used at all stations works well.

"At Colombo and Kandy there is a scarcity of water for ablution purposes, more especially during the dry weather. Suggestions have been made at Colombo for obtaining a never failing supply of water for ablution and bath rooms from wells sunk near the lake. The hospital and married quarters at present receive their supply for these purposes from that source, and the amount is only limited by the size of tank and pumping power. The drinking water is good and abundant, except in dry weather, but if the water for ablution, &c., were raised from the lake, the present well supply would be abundant at all times.

"In all the kitchens (except one at Galle used by the 57th Regiment) Benham's range is used and answers remarkably well.

"The rations have been as good as the climate will allow.

"The great improvement in the situation, ventilation, and cubic space of the barracks, constructed within these last three years, with the improved food and better supply of vegetables, superior means of cooking, suitable clothing and lightened duties, have all contributed to diminish the amount of sickness.

"The climate of Ceylon must always be debilitating, but under suitable sanitary conditions it will compare very favourably, I think, with nearly every other tropical station.

"If arrangements were made to send men to England suffering from climatic diseases at any time of year according as the necessity of the case required, instead of keeping all invalids until the usual annual invaliding season, it would be an immense advantage."

Section II.

On the Extent of Invaliding.

Ceylon.

Thirty-four non-commissioned officers and men of the European troops were invalided from the Command during the year, being in the rate of 34·20 per 1,000 men ; this is 24·32 lower than the corresponding rate of the preceding year. Nine men from the Ceylon Command were discharged the service at Netley during the year. No men of the Asiatic troops were invalided in 1874.

Strength 994.	Invalids sent to England.	Invalids Discharged at Netley.
I. *General Diseases.*		
Constitutional Group	3	3
II. *Local Diseases.*		
Diseases of the—		
Nervous System	3	1
Eye	2	1
Circulatory System	6	3
Absorbent "	1	..
Digestive "	9	..
Generative "	1	1
III. *Debility*	9	..
Total	34	9
Ratio per 1,000 of Mean Strength .. .. { 1874 ..	34·20	9·05
{ 1864-73	44·11	22·38

Section III.

Mean Daily Sick.

The average number (European troops) constantly sick in Ceylon during the year was 36·45, being in the proportion of 36·67 per 1,000 of the strength. The usual statistics calculated from those numbers are given in the following Table :—

	1874.	1864-73.
Ratio per 1,000 of Strength constantly sick	36·67	57·87
	days.	days.
Average sick time to each Soldier	13·39	21·11
Average duration of cases of Sickness ..	16·05	16·65

Section IV.

On the Influence of Age on Mortality.

As the greater part of the troops did not serve for a whole year in the Command, the statistics usually given on this subject have not been compiled.

X.—ON THE HEALTH OF THE TROOPS SERVING IN CHINA AND THE STRAITS SETTLEMENTS.

Section I.
Sickness and Mortality.

I.—CHINA.

STATISTICAL REPORT.

1. EUROPEAN TROOPS.

China.

THE White Troops stationed in China (Hong Kong) during the year were the 3rd Battery 2nd Brigade Royal Artillery, the 80th Foot, and details of the Royal Engineers, Garrison Staff, and Army Hospital Corps. The average annual strength was 948; the admissions into hospital were 995; the deaths, including those of two invalids, one of whom died at sea, and one after arrival at Netley, were 11; the rates represented by these numbers are—for admissions 1049·6, for deaths 11·58, per 1,000 of the strength; both are lower than the corresponding rates of the preceding year.

The following Table shews the admissions, and deaths, from the different classes, and orders, of diseases:—

Order.	Strength	948.				Ratio per 1,000 of Mean Strength.			
			Died.			1874.		1869–73.	
	Diseases.	Admitted.	In China.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group ..	258	3	..	3	272·1	3·16	568·6	1·18
2	Constitutional Group	42	1	1	2	44·3	2·11	115·2	2·36
	II. *Local Diseases.* Diseases of the—								
1	Nervous System ..	16	..	..	..	16·9	..	20·7	1·77
2	Eye	4	..	..	..	4·2	..	24·2	..
3	Ear	15	..	..	..	15·8	..	12·7	..
4	Nose	..	..	..	..	..	..	1·2	..
5	Circulatory System ..	27	..	1	1	28·5	1·05	17·2	1·48
6	Absorbent " ..	4	..	..	..	4·2	..	5·0	..
8	Respiratory " ..	84	1	..	1	88·6	1·05	47·9	1·48
9	Digestive " ..	222	1	..	1	234·2	1·05	305·0	2·07
10	Urinary " ..	58	..	..	..	61·2	..	116·1	·59
11	Generative " ..	19	..	..	..	20·0	..	25·1	..
12	Organs of Locomotion	6	..	..	..	6·3	..	4·7	..
13	Cellular Tissue ..	17	..	..	..	17·9	..	32·2	..
14	Cutaneous System ..	65	..	..	..	68·6	..	96·6	..
	III. *Conditions, &c.*								
	Debility	34	..	..	..	35·9	..	32·8	·29
	IV. *Poisons* ..	15	2	..	2	15·8	2·11	17·1	1·48
	V. *Injuries.*								
2	Accidental	106	1	..	1	111·8	1·05	106·7	·89
3	Homicidal	..	..	..	..	..	..	·3	·59
4	Self-inflicted	1	..	..	..	1·1	..	..	..
	VI. *Surgical Operations*	1	..	..	..	1·1	..	·9	..
	No appreciable Disease	1	..	..	..	1·1	..	3·8	..
	Total.. ..	995	9	2	11	1049·6	11·58	1554·0	14·18
	Average of 10 years, 1864–73	..	..	..	..	1883·0	41·62	..	..

China.

The reduction on the rate of 1873 in the class of general diseases amounts to 140·6 per 1,000, and it extends in nearly equal proportions to both orders of the class :—

The following Table shews the admissions, and deaths, from the principal diseases in this class :—

Strength, 948			Ratio per 1,000 of Mean Strength.			
General Diseases.	Admitted.	Died.	1874.		1869–73.	
			Admitted.	Died.	Admitted.	Died.
Febrile—						
Eruptive Fevers	..	..	..	..	1·8	..
Continued „	142	2	149·8	2·11	121·1	·59
Paroxysmal „	109	1	115·0	1·05	440·0	·59
Influenza	6	..	6·3	..	3·3	..
Erysipelas	1	..	1·0	..	2·1	..
Other diseases of this group	..	..	..	..	·3	..
Total	258	3	272·1	3·16	568·6	1·18
Constitutional—						
Rheumatism	16	..	16·9	..	30·7	..
Syphilis	13	..	13·7	..	71·8	..
Scrofula, Phthisis, &c.	9	2	9·5	2·11	9·4	2·06
Scurvy and Purpura	..	..	..	..	·3	..
Anæmia	3	..	3·2	..	1·8	..
Other diseases of this group	1	..	1·0	..	1·2	·30
Total	42	2	44·3	2·11	115·2	2·36

No form of *eruptive fever*, appeared during the year.

Continued Fevers, have been more prevalent than in the preceding year, but from the remarks of the Principal Medical Officer, it would appear that the increase may to some extent be considered as due to a transference from the group of paroxysmal fevers. There were four admissions from *enteric fever*, all of them in the 80th Foot; the men attacked are stated to have been received from different barracks; two of the cases proved fatal. Admissions for enteric fever have now been returned for three years in the garrison of Hong Kong. The Medical Officer of the regiment notices incidentally, that much sickness, and a (comparatively) large mortality, occurred amongst the children of the 80th, from diarrhœa; the presence of this disease to an exceptional extent, taken in connection with the persistence of enteric fever in the garrison, adds to the presumption regarding the cause of the associated diseases. One admission from *dengue*, took place during the year; the case is stated to have been a well-marked one, and it is also stated that dengue prevailed, though not extensively, amongst the civil population at the time of the occurrence of this case, in the month of November.

Paroxysmal Fevers.—The prevalence of fevers of this nature, was in a proportion a little more than the half of that of the previous year, and a quarter of that of the average of the period of the five preceding years; the death of a man of the Royal Engineers, is returned as due to remittent fever.

Rheumatism.—A large decrease on the rate of the preceding year is observed in connection with this disease.

Syphilis.—Thirteen admissions, of which two only were primary, occurred amongst the White Troops during the year; a decrease of 59· per 1,000 on the rate of 1873 for this disease. The Principal Medical Officer, remarks, that the reduced prevalence of this disease, is entirely owing to the efficiency with which police measures for the enforcement of the Local Contagious Diseases Act, are now carried out.

Scrofula, Phthisis, &c.—The prevalence of diseases of this nature, has been about the same as in the preceding year, and the proportion is nearly the same as the average.

Local Diseases.—*Diseases of the Nervous System*, are in a rate less than the half of that of 1873.

Diseases of the Eye ; four admissions, of which three were on account conjunctivitis, occurred in this group.

There was a considerably increased prevalence in diseases both of the *respiratory*, and of the *circulatory systems*, on that of the preceding year, but in neither group was there excessive prevalence ; the death in the first-named group of diseases is returned as due to congestion of the lungs ; the man was found dead in bed after a debauch, and from the remarks made in connection with the case, it would seem probable that intemperance caused his death.

Diseases of the Digestive System, shew a reduction of nearly a third on the rate of the preceding year, and this is accompanied by a decrease to the same extent in the rate of mortality.

Diseases of the Urinary System.—Owing chiefly to fewer admissions for gonorrhœa, the rate of prevalence is little more than the half of that of the preceding year.

Poisons.—All the admissions returned in this group, were due to delirum tremens, one case of which proved fatal ; the other death, which occurred out of hospital, was due to alcoholic poisoning.

Injuries.—*Accidental Injuries*, are in a rate exceeding that of the previous year, and also that of the average of five years ; the death returned in this group was the result of an injury received in the gymnasium.

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2. Asiatic Troops.

The Asiatic troops, stationed at Hong Kong, during the year consisted of a company of Gun Lascars, the average strength of which was 72 ; the admissions into hospital were 72 ; there was one death ; the rates represented by these numbers are—of admissions 1000·, and of deaths 13·88 per 1,000 of the strength, both being lower than the rates of the preceding year, and of the average of the ten preceding years.

One-sixth of the admissions were from ague ; dysentery, and diarrhœa, rank next in numerical importance amongst the diseases from which the Asiatic troops suffered ; the admissions from gonorrhœa, were also relatively numerous. The death, was due to disease of the heart.

SANITARY REPORT.

Deputy Surgeon-General Crocker remarks :—

" A concurrence of opinion is expressed in the reports received from medical officers attached to corps that the past year has been a most healthy one as regards the troops. The colony, however, will have cause to remember it, on account of the severe typhoon that visited the island on the night of September 22nd and morning of the 23rd, which, though of short duration, caused greater destruction of property and loss of life than was ever known on any previous occasion. The barracks, stores, and other buildings in the occupation of the military came in for a share of destruction ; some of them were partly unroofed, and had windows broken or blown in, but the damage on the whole was not so great as might have been anticipated, and it is satisfactory to report that the troops escaped without any accident. A good deal of damage was caused to the hospital ship " Medanee." At Kowloon, the roofs of the trial hut and officers' quarters were much injured, and the temporary outbuildings blown down ; but at Stanley, formerly a regular out-station, though now only used by the Artillery during their annual gun practice, all the build-

China.

ings were completely demolished, and the walls levelled with the ground. The buildings, however, had long been in a ruinous condition from the ravages of white ants.

A few sanitary works were performed during the year, such as improvement in the ventilation of certain rooms in the Victoria Barracks, from which several cases of fever were almost simultaneously admitted, and improvement of the drainage in the Murray Barracks, where some of the drains had become blocked up by roots of trees. This was remedied at once, but the result of the examination disclosed that the whole system was faulty in the extreme, and that anything short of a complete remodelling and reconstruction would be useless. A plan was accordingly drawn out by the Commanding Royal Engineer, which received the sanction of the Home Authorities, and glazed earthenware pipe drains are now being laid down, which will carry off the whole of the sewage from the latrines, and refuse water from the ablution rooms, and discharge into the harbour beyond low-water mark. The drains will be ventilated by shafts to pass outside the buildings and open on a level with the roof, and these shafts are to be provided with charcoal trays or boxes, which will deodorize any gases that may be generated in the sewers. The work is rapidly going on, and when completed the system of drainage in these barracks will be as perfect as modern science can suggest. In my last report I alluded to the state of the main drain leading from the Wellington Barracks, and discharging into the harbour close under the boundary wall, many feet above low-water mark. The outpour is thus exposed on the beach for many hours, and becomes offensive to the occupants of the quarters in the immediate vicinity. As yet no steps have been taken to do away with this nuisance, but it is one that requires attention and admits of being easily remedied.

Connected with the subject of the general drainage of the station, and as having an indirect bearing on the health of the troops, I may allude to that of the town of Victoria as being in a most insanitary state. Situated on the side of a hill, with a sea frontage along its whole extent, it would be impossible to conceive any town possessing greater facilities for an efficient system of drainage than this has, but the smells arising from almost every drain, opening along the side of the streets and roads, testify how great need there is of improvement. The Colonial Surgeon, in his annual report for 1873, strongly animadverted on the increasing prevalence of continued fevers of a grave type, which he attributed to the defective drainage, but the subject has not yet received the attention it deserves.

Barracks.—Owing to the insufficiency of the regular barrack accommodation, it has been necessary to continue in occupation of M'Gregor's Buildings, situated on Praya East. The whole of this large building is now hired by the Government, one block being occupied by a Company, 80th Regiment, and a second by the Gun Lascars, who moved into it at the end of March, when Fletcher's Buildings, where they were previously quartered, were given up. For a hired building it would be difficult to find any place better suited for troops than M'Gregor's Buildings; the rooms are light, spacious, and lofty, have plenty of cross-ventilation, and afford a large area of floor space as well as cubic measurement. There has never been any overcrowding of the troops, and the average for the year has somewhat exceeded the regulated allowance of 1,000 cubic feet per man.

Mention has been so frequently made in former reports of the very insufficient lighting of the men's rooms. Gas is now in such general use in the colony, that I trust the time is not far distant when its use may be extended to the barracks.

Gymnasium.—The apparatus belonging to the old gymnasium, which was unroofed some years ago, has just been put into order, and is much frequented by the men, but it has been too short a time in use for the training to have produced any decided benefit. It is not covered over, so that during the summer it can only be resorted to in the early mornings and evenings.

Hospital.—The establishment of the station consists of the hospital-ship "Medanee," a casualty ward on shore for the reception of accidents, or urgent cases of sickness, occurring at night, and a ward for the Gun Lascars. I think it very questionable if the advantage of having the hospital afloat counterbalance its many disadvantages. It is much more inconvenient, requires an expensive boat-service, and a large annual expenditure to keep things in proper order, not to mention the risks the vessel encounters during typhoons, as was exemplified in the last one. The naval authorities have given up their hospital establishment afloat, and now have a convenient one on shore, and I strongly advocate a similar course for the military. In regard to the sickness and mortality that has prevailed, the chief causes were fevers and diseases of the digestive and respiratory organs, and accidental injuries. There has been no epidemic of any kind. A large proportion of the fevers were of a malarious character, and several of the cases were re-admissions brought on by cold, rainy weather, and sudden vicissitude of temperature. Fevers of this description are not so frequent as formerly, which I believe is attributable to the ground being more occupied by buildings, and consequently better drained. Four cases of enteric fever occurred, causing two deaths. These all came from different barracks, and it was found impossible to assign any satisfactory cause for their production. There has been hardly any venereal disease (that is, of the more serious form of that complaint), as only three cases of primary syphilis were admitted during the twelve months. This satisfactory result, I may add, is entirely owing to the efficient working of the contagious diseases ordinance."

II.—Straits Settlements.

STATISTICAL REPORT.

Straits Settlements.

The troops stationed in this Command, throughout the year were the 9th Battery 2nd Brigade Royal Artillery, and the 1st Battalion 10th Foot; and during part of the year, a few men of the Army Service, and Army Hospital Corps. The stations occupied were, Singapore, Penang, and Malacca. In the latter part of November, a force of 104 non-commissioned officers, and men, was sent into the field, for a short time, to quell a local disturbance; half of the force returned to Singapore in the second week of December. As no casualties in action, and no special sickness, or excessive amount of ordinary sickness resulted, the statistics relative to the troops employed on the exceptional service, do not require to be given separately.

The average strength of the troops in the Command, during the year, was 895; the admissions into hospital amongst them were 1,165; the deaths, including one of an invalid at Netley, were 7, the rates represented by these numbers being 1301·7 and 7·81 per 1,000 of the strength; both are much lower than those of the preceding year, and of the average of the six preceding years.

The following Table, shews the proportions of sickness, and mortality which occurred from each class, and order, of diseases :—

Straits Settlements.

Orders.	Mean Strength, 895.		Deaths.			Annual Ratio per 1,000 of Strength.			
						1874.		1869–73.	
	Diseases.	Admissions.	In Straits Settlements.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group ..	301	2	..	2	336·3	2·23	609·2	3·04
2	Constitutional „ ..	172	1	1	2	192·2	2·23	152·9	3·04
	II. *Local Diseases.* Diseases of the—								
1	Nervous System ..	17	..	..	..	19·0	..	20·6	1·52
2	Eye	28	..	..	..	31·3	..	18·2	..
3	Ear	3	..	..	..	3·4	..	21·8	..
4	Nose	..	..	..	..	..	..	·3	..
5	Circulatory System ..	31	..	..	..	34·6	..	25·2	1·82
6	Absorbent „ ..	58	..	..	..	64·8	..	17·3	..
8	Respiratory „ ..	65	..	..	..	72·6	..	53·1	1·21
9	Digestive „ ..	188	2	..	2	210·0	2·23	299·8	3·64
10	Urinary „ ..	61	..	..	..	68·2	..	91·9	..
11	Generative „ ..	14	..	..	..	15·6	..	22·8	..
12	Organs of Locomotion	3	..	..	..	3·4	..	5·5	·20
13	Cellular Tissue ..	28	..	..	..	31·3	..	33·4	..
14	Cutaneous System ..	71	..	..	..	79·3	..	122·0	..
	III. *Debility.* ..	28	..	..	..	31·3	..	10·3	..
	IV. *Poisons.* ..	5	1	..	1	5·6	1·12	14·6	·91
	V. *Injuries.*								
2	Accidental	91	..	..	..	101·7	..	130·4	91
4	Self-inflicted ..	..	..	..	..	..	..	·3	·30
	VI. *Surgical Operations*	..	..	..	..	..	..	·3	..
	No appreciable disease ..	1	..	..	..	1·1	..	1·8	..
	Total	1,165	6	1	7	1301·7	7·81	1651·7	16·69
	Average of six years 1868-73	..	..	..	..	1648·5	16·96	..	..

General Diseases.—The rate of prevalence of diseases of this class, is 315· per 1,000 of the strength less than in the preceding year; the reduction is altogether in the order of febrile diseases, of which the rate is only the half of that of 1873; in diseases of the constitutional order, there was a slight increase of prevalence.

The admissions, and deaths, from the principal diseases of this class, are shewn in the following Table :—

Straits Settlements.

General Diseases.	Admitted.	Died.	Ratio per 1,000. 1874. Admitted.	Ratio per 1,000. 1874. Died.	Ratio per 1,000. 1869–73. Admitted.	Ratio per 1,000. 1869–73. Died.
Febrile—						
Eruptive Fevers	1	..	1·1	..	2·7	..
Continued „	151	1	168·7	1·11	157·5	2·73
Paroxysmal „	146	..	163·1	..	445·1	·30
Cholera	1	1	1·1	1·11	..	..
Influenza..	2	..	2·3	..	1·8	..
Erysipelas	..	..	..	..	1·8	..
Other Diseases	..	..	..	..	·3	..
Total ..	301	2	336·3	2·22	609·2	3·03
Constitutional—						
Rheumatism	71	..	79·3	..	44·6	·30
Syphilis	90	..	100·6	..	95·0	·61
Scrofula, Phthisis, &c. ..	9	1	10·0	1·11	9·1	1·82
Scurvy and Purpura ..	..	..	..	..	·3	..
Anæmia	..	..	..	..	1·5	..
Other Diseases	2	1	2·3	1·11	2·4	·30
Total	172	2	192·2	2·22	152·9	3·03

Eruptive Fevers.—The admission in this group, was from small-pox.

Continued Fevers.—The proportion of diseases in this group, is a little higher than in 1873; one of the admissions was due to typhus fever, and the illness which originated at Tanglin, proved fatal; one admission for enteric fever occurred at Fort Canning, Singapore.

Paroxysmal Fevers.—The proportion of admissions for fevers of this nature, shews a reduction of 362· per 1,000 men on that of the previous year; this is due to the lessened prevalence of ague, in the men of the 1st Battalion 10th Foot at Tanglin, since (and probably in consequence of), the clearing away of the jungle in the vicinity of the barracks.

Cholera.—The admission on account of this disease, occurred at Tanglin, cholera being at the time endemic at Singapore amongst the civil population; the death was that of a soldier in the civil prison at Singapore.

Rheumatism.—The rate of admissions, is considerably higher than that of the preceding year, and is not far from twice as great as the average; the reports do not allude to the causes of the increased prevalence, which was not confined to any one station, but was general in the Command.

Syphilis.—The rate of admissions is almost the same as that of the preceding year, and is a little higher than that of the average; the prevalence of this disease has not yet been lowered by the influence of the local Contagious Diseases Act, in force in the Settlement.

Scrofula, Phthisis, &c.—Whilst more prevalent, diseases of this nature were less fatal, than in 1873.

LOCAL DISEASES.—*Diseases of the Nervous System, of the Eye, of the Circulatory, Absorbent, and Respiratory Systems*, are all in higher rates than in the preceding year, but no deaths were due to diseases in any of those groups.

Diseases of the Digestive System, were very much less prevalent than in 1873, the rate being one third less than the corresponding one of that year, whilst the proportion of deaths, is only half as great.

Diseases of the Urinary System, were a little more prevalent than in the preceding year, but were in less than the average prevalence.

POISONS.—The admissions due to this class of diseases, were fewer than

Straits Settlements.

in the preceding year. The Medical Officer in charge of the detachment, 1st Battalion, 10th Foot, at Penang refers in his report to the great diminution of drunkenness amongst the men at that station.

SANITARY REPORT.

Deputy Surgeon-General Moorhead reports that the following works and improvements were effected in 1874:—

At *Fort Canning.*—Laying down wooden floor in hospital; clearing jungle in vicinity of barracks.

At *Tanglin.*—Construction of bathing tank; tiling floor of verandah at hospital; substituting stone steps to two barracks; clearing and cutting down jungle in vicinity of barracks.

At *Penang.*—Completing water supply to Fort Cornwallis.

Estimates have been made and sums granted for the following works during the year 1875.

At *Fort Canning.*—Barrack rooms to be newly floored.

At *Tanglin.*—Two additional water tanks are to be constructed.

At *Penang.*—The erection of a fives court in the infantry lines; new latrines to be constructed adjacent to infantry barracks; drainage of ground near infantry barracks to be carried out.

Fort Canning was the healthiest of the four stations, notwithstanding the fact that delicate and sickly men were occasionally sent there from other stations. No epidemic visited any of the stations occupied by the troops during the year, althouh cases of cholera occurred among the civil population in the vicinity of the several barracks. The general state of health of the troops may be regarded as satisfactory, considering the proximity of the various stations to the equator, the high temperature and the exceedingly moist character of the climate; although the average daily sick was moderate, and the deaths few, the invaliding was, however, proportionately greater than during the two previous years.

The Medical Officers at the different stations coincide in opinion that there is too much sameness in the soldiers' diet in the Straits Settlements. The ration of beef issued daily, without any variation during the year round, constitutes a monotonous diet, and Surgeon-Major Park, of the 1st Battalion, 10th Foot, at Tanglin, considers that there has been a scorbutic taint in some of his patients in hospital, probably from this cause, and from a want of variety in the vegetables. A good supply of the latter might, I consider, be grown in the vicinity of the barracks at Tanglin, and if a salt ration were issued once or twice a week, it would be more acceptable than the daily and constant use of fresh beef. Mutton is very expensive in this part of the world, and has to be imported from a distance.

Section II.

On the Extent of Invaliding.

China and Straits Settlements.

In the following Table, the statistics of invaliding of the China, and of the Straits Settlements Commands, are combined. From the latter, 54 invalids were sent home; the invalids finally discharged the service at Netley from the Straits Settlements Command during the year were 25:—

China and Straits Settlements.

	White Troops	
Mean Strength	1,843	
	Sent as Invalids to England.	Discharged as Invalids in England.
I. *General Diseases*		
Constitutional Group	20	14
II. *Local Diseases.*		
Diseases of the—		
Nervous System	6	..
Eye	2	4
Circulatory System	14	6
Respiratory „	11	2
Digestive „	23	7
Urinary „	2	1
Locomotive „	2	2
Cutaneous „	1	..
III. *Conditions, &c.*		
Debility	8	2
Total	89	38
Annual ratio per 1,000 of Mean Strength 1874	48·29	20·62

The proportion of invalids sent home from the two Commands, is much larger than in the previous year, and that of invalids finally discharged the Service is twice as great.

Section III.

Mean Daily Sick.

The average number constantly sick during the year, amongst the White Troops in China, was 32·10, and in the Straits Settlements, 48·65, per 1,000 of the strength.

The following Table, gives the usual information, calculated from these numbers :—

		European Troops.		Asiatic Troops.
		China.	Straits Settlements.	China.
Ratio per 1,000 of Strength constantly Sick	1874 ..	33·86	54·35	47·50
	1864–73	77·50	*56·62	45·57
		days.	days.	days.
Average Sick time to each Soldier ..	1874 ..	12·36	19·84	17·34
	1864–73	28·29	*20·67	16·68
Average duration of Cases	1874 ..	11·77	15·24	17·34
	1864–73	15·02	*12·54	14·91

* Average of six years, 1868–73.

China and Straits Settlements.

In all the particulars and in both Commands, the results are favourable in the present year with the exception that in the Straits Settlements, the average duration of cases of sickness is higher than the average, indicating the more chronic character of the illnesses.

Section IV.

Influence of Age on Mortality.

The following Table shews the ages of the White Troops in quinquennial periods, and the deaths at each age, in the combined Commands :—

Corps.	Under 20 Years.		20 and under 25.		25 and under 30.		30 and under 35.		35 and under 40.		40 and upwards.	
	Average Strength.	Died.	Average Strength.	Died.	Average Strength.	Died.	Average Strength.	Died.	Average Strength.	Died.	Average Strength.	Died.
Royal Artillery	3	...	57	...	59	1	26	1	23	...	6	...
1st Battalion 10th Foot... ...	8	...	377	3	201	2	179	1	72	...	15	1
80th Foot...	16	...	504	3	146	1	83	2	83	1	24	1
Total	27	...	938	6	406	4	288	4	178	1	45	2
Annual ratio per 1,000 of Strength 1874	...		6·4		9·85		13·90		5·62		44·44	
Annual ratio per 1,000 of Strength ... ... 7 years	2·93		19·49		34·15		28·89		65·00		79·36	

XI.—ON THE HEALTH OF THE TROOPS SERVING IN INDIA.

Section I.

Sickness and Mortality.

India.

THE average strength of the European troops serving in the Indian Commands in 1874 was 60,067 non-commissioned officers and men; the number admitted into hospital was 80,103, and the deaths among them amounted to 854, of which 812 occurred in India, and 42 were those of invalids on the passage home, or at Netley. The rates per 1,000 of the strength represented by these numbers are, for admissions 1333·6, and for deaths 14·22; the first being a little higher than that of the preceding year, whilst the latter is 2·03 lower than the corresponding rate of 1873. The admissions and deaths in the several Commands in India, were as follows:—

	Average Strength.	Admissions into Hospital.	Deaths.			Ratio per 1,000 of Mean Strength.			
						1874.		1864–73.	
			In India.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
Bengal	37,911	53,708	547	30	577	1416·7	15·23	1502·6	26·08
Madras	11,578	12,989	152	7	159	1121·9	13·73	1371·6	22·85
Bombay	10,578	13,406	113	5	118	1267·3	11·16	1404·0	19·63

The proportion of admissions in the Bengal Command exceeds that of the preceding year; the proportion is lower both in Madras, and in Bombay; in all the three Commands there is a material decrease in the proportion of deaths, smallest in the instance of Bengal, largest in that of Madras, in which it amounts to 6·17 per 1,000 men.

I.—BENGAL.

STATISTICAL REPORT.

Bengal.

The average strength of the European troops serving in the Bengal Command, during the year was 37,911; the admissions into hospital among them were 53,708, and the deaths, including those of invalids who died at sea, or after arrival at Netley, were 577. The rate of admissions is therefore 1416·7, and of deaths 15·23 per 1,000 of the mean annual strength, the former being 81·8 per 1,000 men higher, and the latter ·81 lower than the corresponding rates of the preceding year.

Bengal.

The admissions and deaths from the different classes and orders of diseases are shewn in the following Table :—

Orders.	Diseases.	Strength, 37,911.				Ratio per 1,000 of Mean Strength.			
		Admitted.	Deaths.			1874.		1869–73.	
			In the Command.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
	General Diseases.								
1	Febrile Group ..	21,115	135	..	135	557·0	3·56	664·8	9·87
2	Constitutional Group	5,884	55	15	70	155·2	1·85	159·9	2·29
	Local Diseases. Diseases of the—								
1	Nervous System ..	682	58	1	59	18·0	1·56	20·6	2·51
2	Eye	873	..	..	..	23·0	..	24·2	..
3	Ear	341	..	..	..	9·0	..	7·0	..
4	Nose	26	..	..	..	·7	..	·6	·01
5	Circulatory System ..	949	55	6	61	25·0	1·61	18·4	1·65
6	Absorbent „ ..	489	..	..	..	12·9	..	15·8	..
7	Ductless Glands ..	5	..	..	..	·1	..	56·5	1·39
8	Respiratory System ..	2,329	22	..	22	61·4	·58		
9	Digestive „ ..	8,550	145	5	150	225·5	3·95	255·8	6·21
10	Urinary „ ..	4,167	9	1	10	110·0	·26	101·8	·36
11	Generative „ ..	554	..	..	..	14·6	..	15·3	..
12	Organs of Locomotion	205	..	..	..	5·4	..	5·1	·04
13	Cellular Tissue ..	579	1	..	1	15·3	·03	12·6	·03
14	Cutaneous System ..	2,651	..	..	..	70·0	..	66·8	·02
	III. *Conditions, &c.* Debility	704	1	2	3	18·6	·08	18·1	·11
	IV. *Poisons* ..	113	7	..	7	3·0	·18	4·9	·34
	V. *Injuries.*								
2	Accidental	3,404	37	..	37	89·8	·98	84·9	·82
3	Homicidal	1	1	..	1	·2	·03	·4	·06
4	Self-inflicted	9	19	..	19		·50		·60
6	Judicial	3	1	..	1		·03		·02
	VI. *Surgical Operations*	12	..	..	..	·3	..	·4	·03
	Not specified ..	..	1	..	1	..	·03	..	
	No appreciable disease	63	..	..	..	1·7	..	·7	..
	Total	53,708	547	30	577	1416·7	15·23	1534·6	26·36
	Average of 10 years 1864–73.. ..	..	..	..	..	1502·6	26·08	..	..

General Diseases.—Compared with 1873 there was an increased prevalence of diseases of this class, and the increase extended to both of the orders, but fewer deaths were caused by fevers than in the preceding year.

The admissions, and deaths, from the principal diseases of this class, are shewn in the following Table :—

Strength	37,911	Died.			Ratio per 1,000 of Mean Strength.			
					1874.		1869–73.	
General Diseases.	Admitted.	In Command.	Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
Febrile—								
Eruptive Fevers	101	7	..	7	2·7	·18	1·9	·24
Continued ,, ...	6,890	81	..	81	181·7	2·14	177·5	1·96
Paroxysmal ,, ...	13,935	33	..	33	367·6	·87	472·4	1·89
Cholera	9	7	..	7	·2	·19	8·5	5·61
Influenza	30	..	..	..	·8	..	1·5	..
Erysipelas	137	4	..	4	3·6	·10	2·1	·09
Other Diseases	13	3	..	3	·4	·08	·9	·08
Total	21,115	135	..	135	557·0	3·56	664·8	9·87
Constitutional—								
Rheumatism	2,019	..	..	..	53·5	..	51·7	·03
Syphilis	3,351	2	..	2	88·4	·05	88·8	·13
Scrofula, Phthisis, &c. ..	334	46	12	58	8·8	1·53	11·2	1·94
Scurvy and Purpura ..	13	1	..	1	·3	·03	·6	·01
Anæmia	147	..	1	1	3·8	·03	6·7	·04
Other Diseases	20	6	2	8	·5	·21	·9	·14
Total	5,884	55	15	70	155·3	1·85	159·9	2·29

Eruptive Fevers, were more prevalent than in 1873, the greatest increase being in the admissions from scarlet fever, but the mortality from diseases in this group was in a lower rate than in the year preceding.

Continued Fevers, were both more prevalent and more fatal than in 1873, the excess of admissions was chiefly in simple continued, and enteric fevers; the increased mortality was due to the latter disease. Dengue fever, which began as a widely-spread epidemic in 1872, was not quite extinct in the year under notice, 45 admissions from it are returned.

Paroxysmal Fevers, were less prevalent, and caused fewer deaths, than in the preceding year.

Cholera.—Only 9 admissions took place in the whole of the Bengal Command, from this disease, which was nowhere epidemic; the admissions took place at 5 stations widely apart, and were not limited to any season; of the attacks 7 were fatal.

Erysipelas.—This disease is in a rate one-third higher than that of 1873, and is in excess of the average rate of prevalence.

Rheumatism, was considerably in excess of the prevalence of the year preceding; the rate of admissions is also higher than that of the average.

Syphilis.—The rate of admissions is higher than that of the preceding year, by nearly 21· per 1,000 men, but it is almost the same as that of the average.

Scrofula, Phthisis, &c.—Compared with the corresponding rates of 1873 those of the present year shew no material difference, a lower admission rate coexists with a slightly higher death rate, but both rates are more favourable than those of the average.

LOCAL DISEASES.—*Diseases of the Nervous System*, were less prevalent, and less fatal, than in 1873, they were also in less than the average prevalence, and in much less than the average fatality; the greatest part of the decrease in mortality has taken place in the diseases—sunstroke and apoplexy—which

Bengal. should be favourably influenced by the improvements in barracks carried out of late years.

Diseases of the Circulatory System, were a little more prevalent than in 1873, and the rate of admissions is a fourth higher than the average; but there is no corresponding increase in the proportion of mortality in diseases of this nature.

Diseases of the Respiratory System, were a little more prevalent, but were much less fatal than in 1873.

Diseases of the Digestive System.—The rate of admissions is nearly identical with that of the preceding year, that of deaths is fractionally higher, but both are lower than of the average.

Diseases of the Urinary System, are in a higher rate than in the preceding year, owing to the increased prevalence of gonorrhœa.

CONDITIONS, &c.—There is a moderate reduction in the rate of admissions for debility on that of 1873.

POISONS.—The rate of admissions is the same as that of the preceding year, that of deaths fractionally exceeds the corresponding rate of 1873, both are lower than the average; excepting three, all the admissions were due to delirium tremens, and to poisoning by alcohol.

INJURIES.—The admissions due to injuries, are in a rate 7·1, and the mortality following then ·23 per 1,000 men in excess of the corresponding rates of the preceding year; both are also considerably higher than those of the average; of 37 deaths by accident, 3 were caused by multiple injury, 12 by drowning, 1 by asphyxia in a man comatose from drink, 3 by asphyxia due to the impaction of a piece of meat in the larynx, 10 to injuries of the brain, or spinal column, 2 to fractures, and 6 to gunshot wounds. The homicidal death was by gunshot; 17 of the suicidal deaths were by cut-throat, 1 by falling from a height, and 1 by hanging. One death was a judicial execution.

The following Table, taken from the report of the Principal Medical Officer, shews the admissions and deaths during the year, at the principal stations in the Command.

Stations.		Average Annual Strength.	Admitted into Hospital.	Died in India.	Ratio per 1,000 of Strength.		Annual Ratio per 1,000. 1865–73.	
					Admitted.	Died.	Admitted.	Died.
Presidency	Calcutta ..	949	851	15	897·	15·81	1440·7	21·36
	Dum-Dum ..	534	495	14	927·	26·22		
	Barrackpore ..	399	942	12	2361·	30·07	1784·1	31·45
	Hazaribagh ..	892	956	30	1072·	33·63	1306·1	16·18
	Darjeeling ..	76	90	..	1184·	..	†768·8	†17·85
Allahabad	Allahabad ..	1,014	1,634	17	1611·	16·76	1776·5	46·11
	Dinapore ..	939	1,842	26	1962·	27·69	1494·3	23·77
	Benares ..	476	733	10	1540·	21·01	1680·3	26·00
	Chunar ..	64	141	3	2203·	46·87	†1782·9	†31·00
	Cawnpore ..	898	1,529	19	1703·	21·16	1623·3	23·68
Oudh ..	Lucknow ..	2,400	3,096	41	1290·	17·08	1266·1	25·80
	Fyzabad ..	980	1,220	8	1245·	8·16	1165·1	27·05
	Sitapur ..	631	906	5	1436·	7·92	1079·2	18·95
Rohilcund	Bareilly ..	794	898	4	1131·	5·04	965·5	11·80
	Moradabad ..	200	222	2	1110·	10·00	1009·3	15·35
	Shahjahanpur ..	29	19	1	655·	34·48	1337·3	19·84
	Ranikhet ..	828	667	12	805·	14·49	†1073·9	†22·18

† For 1872 and 1873 only.

Stations.		Average Annual Strength.	Admitted into Hospital.	Died in India.	Ratio per 1,000 of Strength.		Annual Ratio per 1,000. 1865–73.	
					Admitted.	Died.	Admitted.	Died.
Saugor ..	Jubbulpore ..	483	437	4	905·	8·28	1872·7	33·22
	Saugor	380	673	9	1771·	23·68	2054·8	32·37
	Nowgong.. ..	305	714	8	2341·	26·23	1576·6	24·84
Gwalior	Morar	1,133	1,248	5	1101·	4·41	2035·8	33·84
	Fortress Gwalior	364	378	6	1038·	16·48	1313·6	24·80
	Jhansi.. ..	406	862	5	2123·	12·31	2555·2	19·50
Meerut ..	Meerut.. ..	1,499	3,635	29	2425·	19·35	1685·1	35·56
	Fatehgarh ..	282	427	4	1514·	14·18	1316·0	19·32
	Agra	1,047	1,466	8	1400·	7·64	1317·7	20·56
	Muttra ..	462	487	6	1054·	12·99	1145·3	16·53
	Delhi	527	1,081	8	2051·	15·18	1948·2	32·29
	Roorkee ..	364	394	6	1082·	16·48	1429·7	18·68
	Chakrata ..	761	674	6	886·	7·88	†548·7	†9·00
Sirhind ..	Umballa ..	1,458	2,375	13	1629·	8·92	1406·7	17·18
	Jullundur ..	837	793	6	947·	7·17	1552·7	21·75
	Subathu ..	752	508	4	675·	5·32	1173·2	17·22
	Dagshai ..	858	661	6	770·	6·99	978·6	11·67
	Solun	174	321	4	1845·	22·99	..	..
	Jutogh.. ..	89	78	2	876·	22·47	†658·5	†12·19
Lahore ..	Meen Meer ..	792	1,671	13	2110·	16·41	2252·6	41·89
	Fort Lahore ..	110	176	2	1600·	18·18		
	Amritsar Cantonments	143	247	..	1727·	..	*1699·0	*12·26
	Ft. Govindgarh	123	330	1	2683·	8·13	1262·4	17·73
	Ferozepore ..	1,049	1,197	22	1141·	20·97	1389·1	16·05
	Mooltan ..	856	987	10	1153·	11·68	1363·6	20·05
	Fort Kangra ..	49	27	..	551·	..	†1141·3	†20·18
	Bhagsu	109	98	..	899·	..	† 779·0	..
	Dalhousie ..	60	42	..	700·	..	*752·0	..
	Banikhet ..	71	57	..	803·	..	*1269·0	*12·82
Rawal Pindi	Rawal Pindi ..	1,718	1,830	15	1065·	8·73	1544·1	15·02
	Sialkot ..	969	1,087	7	1122·	7·22	1358·3	12·02
	Campbellpore ..	163	152	2	932·	12·27	1397·6	15·89
	Attock.. ..	160	375	5	2344·	31·25	2009·1	20·33
	Dera Ismail Khan	101	358	1	3544·	9·90	1414·5	15·64
	Khyra Gully ..	50	72	1	1440·	20·00	*1070·2	..
	Kalabagh ..	95	101	2	1063·	21·05	*2804·7	..
	Bara Gully ..	77	80	2	1039·	25·97	*1269·0	*25·21
	Chungla Gully	94	82	1	872·	10·64	*1238·5	* 9·17
	Kooldunnah ..	204	171	1	832·	4·90	*1295·7	* 8·69
	Murree ..	108	132	1	1222·	9·26	†1321·0	†35·71
	Camp Ghareeal	144	91	..	632·	..	..	..
Peshawar..	Peshawar ..	1,681	4,909	19	2920·	11·30	2590·1	47·25
	Nowshera ..	353	839	2	2377·	5·66	2271·0	20·97
	Cherat.. ..	339	414	..	1221·	..	*1239·7	*23·20
Troops at Camps of exercise..		160	72	1	450·	6·25	*807·0	*4·33
„ on March, detached, &c.		1,784	1,212	22	679·	12·33	*713·0	*6·35
„ treated at Convalescent Depôts and other Hospitals ..		2,065	3,446	59	1669·	28·57	*1421·0	*30·30

* For 1873 only. † For 1872–73 only.

Bengal.

Omitting Dera Ismail Khan, where the average strength was just over 100, the station of Peshawar shews the highest admission rate (2920·), it is 1503· higher than the average rate of the whole Command, and 648· per 1,000, in excess of the admission rate of the station in the preceding year. The great prevalence of fevers both of the simple continued and of the malarial forms, contributed to this result. There is no material difference in the proportions of sickness of the two Infantry regiments (the 1st Battalion 17th Foot and the 72nd Foot) of the garrison of Peshawar; though the former, which arrived after a three months' march from Lucknow, was the most sickly. Both regiments had large detachments stationed at Cherat, and at Murree, during the hot season, and an interchange of men between Peshawar and those stations, took place from time to time. The Medical Officer of the 1st Battalion 17th Foot states in his report, that the men of the battalion suffered in health from the comparatively severe cold experienced as it marched northward. Respecting another cause of the high proportion of sickness amongst the men, he remarks, "The chief feature of medical interest in "April was the opening of the 'Europe Liquor Shop' on the 13th April. The "men had saved a good deal of money on the march, and the opening of this "establishment was the signal for a burst of intemperance, the after effects of "which were abundantly illustrated in the Hospital Returns." It is important in connexion with these remarks to note that the figures in the Annual Sick Return itself give no indication of the effect of intemperance in causing sickness; in the absence of the explanation above given only two admissions, one from alcohol poisoning, and one from delirium tremens, would be taken as those due to intemperance, and the number of admissions for dyspepsia (39) is unusually small. Next to Peshawar, the station having the highest proportion of admissions is Fort Govindgarh (2683· per 1,000), but though exceeding 100, the strength at that station was too small to render a comparison with larger stations of much value; if Fort Govindgarh be omitted, Meerut, having an admission rate of 2425·, has next to Peshawar the highest for the year; and following this is Nowshera with an admission rate of 2377 per 1,000 men, At both of those stations malarious fever was the principal form of sickness. causing at the first-named, admissions in the proportion of 1300·, and at the last 1150· per 1,000 of the strength. At Barrackpore, Fort Attock, Nowgong, Jhansi, Delhi, and Meen Meer, the admissions were more than double the mean strength; fevers, though not in every instance malarious fevers, caused the high proportions of admissions. At the following stations, each of which had an average strength of over 100 men, the admissions were fewer than the strength,—Ghareal, Subathu, Dagshai, Ranikhet, Kooldunnah, Chakrata, Calcutta, Bhagsu, Jubbulpore, Dum-Dum, Campbellpore, Jullundur. The stations having the highest death rates are Hazaribagh 33·63, Attock 31·25, and Barrackpore 30·07 per 1,000 of the strength; at the former a majority of the deaths were due to enteric fever, at the latter to enteric fever, dysentery, and abscess of the liver. Omitting notice of stations having an average strength under 100, there were four, Amritsar, Bhagsu, Ghareal, and Cherat, at which no deaths took place during the year; after these the lowest death rate is that of Morar, 4·41 per 1,000 men, and there are 19 stations, the rate of mortality of each of which is under 1 per cent. of the strength.

The admissions and deaths from the different classes and orders of diseases are shewn in the following Tables, compiled from the Quarterly Returns of the Command.

Bengal.

Order.	Stations	Presidency.		Allahabad.		Oudh.		Saugor.		Rohilcund.		Gwalior.		Meerut.		Sirhind.		Lahore.		Rawal Pindi.		Peshawar.		Depôts.		On the March.	
	Strength	2,857		3,313		3,945		1,172		1,821		1,844		4,740		4,167		3,178		3,827		2,451		1,616		2,192	
	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*																										
1	Febrile Group	1,019	28	1,698	23	1,142	12	951	9	365	3	1,052	6	3,991	9	1,716	4	2,196	15	1,615	11	4,161	7	886	3	295	3
2	Constitutional ,, ...	326	7	765	5	789	7	154	2	295	1	291	1	733	8	478	5	611	2	446	2	242	...	472	3	307	1
	II. *Local Diseases.*																										
	Diseases of the—																										
1	Nervous System	37	9	86	10	59	4	13	1	32	2	35	1	88	7	60	6	97	8	69	2	38	4	48	1	20	2
2	Eye	107	...	111	...	148	...	15	...	18	...	54	...	93	...	73	...	66	...	53	..	69	...	14	...	32	...
3	Ear	35	...	64	...	50	...	6	...	15	...	18	...	23	...	30	...	34	...	30	...	13	...	17	...	2	...
4	Nose	...	...	1	...	4	...	...	..	1	...	3	...	3	...	2	...	6	...	3	...	2	...	1	...	...	...
5	Circulatory System	42	4	103	5	111	6	7	1	43	2	31	2	106	5	95	5	70	7	90	8	106	1	166	5	12	3
6	Absorbent ,, ...	34	...	82	...	58	...	15	...	31	...	36	...	48	...	32	...	24	...	40	...	33	...	35	...	35	...
7	Ductless Glands	...	...	2	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
8	Respiratory System	96	1	244	1	137	...	64	1	95	1	91	1	310	2	240	3	259	...	270	2	268	1	147	2	114	4
9	Digestive ,, ...	606	14	1,138	20	1,079	16	357	6	346	10	356	2	1,186	25	882	7	592	11	784	9	539	3	463	9	247	4
10	Urinary ,, ...	361	1	684	...	707	2	90	...	219	...	216	1	515	1	361	1	281	1	247	...	120	1	165	1	189	...
11	Generative ,, ...	50	...	63	...	58	...	20	...	23	...	15	...	79	...	57	...	59	...	65	...	32	...	29	...	18	...
12	Organs of Locomotion ...	11	...	30	...	26	...	3	...	14	...	7	...	31	...	14	...	9	...	24	...	10	...	15	...	7	...
13	Cellular Tissue	61	...	63	...	52	...	15	...	23	...	28	...	56	...	87	...	45	...	58	...	40	...	25	...	21	...
14	Cutaneous System	253	...	365	...	355	...	66	...	74	...	112	...	347	...	299	...	192	...	271	...	159	...	98	...	45	...
	III. *Conditions, &c.*																										
	Debility	113	...	41	...	75	...	8	...	18	...	37	...	66	1	32	...	65	...	33	...	136	...	80	...	44	...
	IV. *Poisons*	12	...	17	1	11	1	4	...	9	...	2	...	17	1	10	1	8	...	8	...	7	1	5	...	1	...
	V. *Injuries.*																										
2	Accidental	210	1	310	6	364	6	77	2	172	...	177	1	451	4	450	3	239	1	453	5	206	1	162	...	111	3
3	Homicidal	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
4	Self-inflicted	2	4	...	4	...	...	...	...	...	...	...	...	2	3	1	...	1	3	1	...	1	2	1	1	1	1
6	Judicial	...	...	...	...	...	...	...	...	...	...	...	...	..	...	2	...	...	...	...	...	...	...	...	...	...	...
	VI. *Surgical Operations* ...	1	...	...	...	3	...	...	...	4	...	...	...	...	...	...	...	..	...	1	...	1	...	1	...	...	...
	Not specified	...	...	...	...	1	...	...	...	2	...	...	...	1	...	...	...	...	...	2	...	1	...	3	...	...	...
	No appreciable disease ...	3	...	4	...	13	...	...	...	1	...	...	...	3	...	...	...	...	...	...	...	3	...	38	...	...	...
	Total	3,379	70	5,871	75	5,243	54	1,865	22	1,801	19	2,561	15	8,149	66	4,923	35	4,854	48	4,563	39	6,187	21	2,871	25	1,501	21

Ratio per 1,000 of Mean Strength.

Order.	Stations	Presidency		Allahabad.		Oudh.		Saugor.		Rohilcund.		Gwalior.		Meerut.		Sirhind.		Lahore.		Rawal Pindi.		Peshawar.		Depôts.		On the March.	
	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	1. *General Diseases.*																										
1	Febrile Group ...	356·6	9·80	512·5	6·94	289·5	3·04	811·4	7·68	200·5	1·64	570·5	3·25	842·0	1·90	411·8	·96	691·0	4·72	422·0	2·88	1697·7	2·86	548·3	1·85	134·6	1·37
2	Constitutional ,, ...	114·1	2·45	230·9	1·51	200·0	1·77	131·4	1·71	162·0	·55	157·8	·54	154·6	1·69	114·7	1·20	192·3	·63	116·5	·52	98·7	...	292·1	1·85	140·0	·46
	II. *Local Diseases.*																										
	Diseases of the—																										
1	Nervous System ...	13·0	3·15	25·9	3·02	14·9	1·01	11·1	·85	17·6	1·10	19·0	·54	18·6	1·48	14·4	1·44	30·5	2·52	18·0	·52	15·5	1·63	29·7	·62	9·1	·91
2	Eye	37·5	...	33·5	...	37·5	...	12·8	...	9·9	...	29·3	...	19·6	...	17·5	...	20·8	...	13·8	...	28·2	...	8·7	...	14·6	...
3	Ear	12·3	...	19·3	...	12·6	...	5·1	...	8·2	...	9·8	...	4·9	...	7·2	...	10·7	...	7·8	...	5·3	...	10·5	...	·9	...
4	Nose	...	...	·3	...	1·0	...	...	...	·5	...	1·6	...	·6	...	·5	...	1·9	...	·8	...	·8	...	·6	...	...	...
5	Circulatory System ...	14·0	1·40	31·1	1·51	28·1	1·52	6·0	·85	23·6	1·10	16·8	1·09	22·4	1·06	22·8	1·20	22·0	2·20	23·5	2·09	43·2	·41	102·7	3·10	5·5	1·37
6	Absorbent ,, ...	11·9	...	24·8	...	14·7	...	12·8	...	17·0	...	19·5	...	10·1	...	7·7	...	7·6	...	10·4	...	13·5	...	21·7	...	16·0	...
7	Ductless Glands ...	...	...	·6	...	·3	...	...	...	·5	...	...	...	...	...	·2	...	...	...	...	...	...	...	...	...	...	...
8	Respiratory System ...	33·6	·35	73·7	·30	34·7	...	54·6	·85	52·2	·55	49·3	·54	65·4	·42	57·6	·72	81·5	...	70·5	·52	109·3	·41	91·0	1·24	52·0	1·82
9	Digestive ,, ...	212·1	4·90	343·5	6·04	273·5	4·06	304·6	5·12	190 0	5·49	193·1	1·09	250·2	5·27	211·7	1·68	186·3	3·46	204·9	2·35	219·9	1·22	286·5	5·57	112·7	1·82
10	Urinary ,, ...	126·4	·35	206·5	...	179·2	·51	76·8	...	120·3	...	117·1	·54	108·7	·21	86·6	·24	88·3	·31	64·5	...	49·0	·41	102·1	·62	86·2	...
11	Generative ,, ...	17·5	...	19·0	...	14·7	...	17·1	...	12·6	...	8·1	...	16·7	...	13·7	...	18·6	...	17·0	...	13·1	...	17·9	...	8·2	...
12	Organs of Locomotion	3·9	...	9·1	...	6·6	...	2·6	...	7·7	...	3·8	...	6·5	...	3·4	...	2·8	...	6·3	...	4·1	...	9·3	...	3·2	...
13	Cellular Tissue ...	21·4	...	19·0	...	13·2	...	12·8	...	12·6	...	15·2	...	11·8	...	20·9	...	14·1	...	15·1	...	16·3	...	15·5	...	9·6	...
14	Cutaneous System ...	88·6	...	110·2	...	90·0	...	56·3	...	40·6	...	60·7	...	73·2	...	71·7	...	60·4	...	70·8	...	64·9	...	60·6	...	20·5	...
	III. *Conditions, &c.*																										
	Debility	39·6	...	12·4	...	19·0	...	6·8	...	9·9	...	20·1	...	13·9	·21	7·7	...	20·5	...	8·6	...	55·5	...	49·5	...	20·1	...
	IV. *Poisons* ...	4·2	...	5·1	·30	2·8	·25	3·4	...	5·0	...	1·1	...	3·6	·21	2·4	·24	2·5	...	2·1	...	2·9	·41	3·1	...	·5	...
	V. *Injuries.*																										
2	Accidental	73·9	·35	93·6	1·81	92·3	1·52	65·7	1·71	94·5	...	96·0	·54	95·2	·84	108·0	·72	75·2	·31	118·4	1·31	84·0	·41	100·3	...	50·6	1·37
3	Homicidal	...	·35	...	...	...	...	...	...	...	...	...	...	...	...	·2	...	...	...	...	...	...	...	...	...	...	...
4	Self-Inflicted	·7	1·40	...	1·20	...	...	...	...	...	...	...	...	·4	·63	·2	...	·3	·95	·3	...	·4	·81	·6	·62	·5	·46
6	Judicial	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·5	...	...	...	...	...	...	...	...	...	...	...
	VI. *Surg. Operations.*	·4	...	...	...	·8	...	...	...	2·2	...	...	...	...	...	...	...	...	...	·3	...	·4	...	·6	...	...	...
	Not specified	...	...	...	...	·3	...	...	...	1·1	...	...	...	·2	...	...	...	...	...	·5	...	·4	...	1·8	...	...	...
	No appreciable disease	1·0	...	1·0	...	3·3	...	...	...	·5	...	...	...	·6	...	...	...	...	...	...	...	1·2	...	23·5	...	...	...
	Total	1182·7	24·50	1772·0	22·63	1329·0	13·68	1591·3	18·77	989·0	10·43	1388·8	8·13	1719·2	13·92	1181·4	8·40	1527·3	15·10	1192·1	10·19	2524·3	8·57	1776·6	15·47	684·8	9·58

GENERAL DISEASES.

Stations	Presidency.		Allahabad.		Oudh.		Saugor.		Rohilcund.		Gwalior.		Meerut.		Sirhind.		Lahore.		Rawal Pindi.		Peshawar.		Depôts.		On the March.	
Strength	2,857		3,313		3,945		1,172		1,821		1,844		4,740		4,167		3,178		3,827		2,451		1,616		2,192	
General Diseases.	Admitted.	Died	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile—																										
Eruptive Fevers	1	...	20	1	3	...	4	...	4	...	7	3	7	1	36	...	1	...	6	...	3	...	3	1	1	...
Continued ,, ...	820	24	585	12	691	9	141	7	164	2	100	2	499	5	493	2	534	5	459	6	2,239	4	26	1	55	2
Paroxysmal ,, ...	190	1	1,063	5	434	2	798	2	193	1	943	1	3,462	3	1,159	1	1,647	8	1,127	3	1,904	3	839	1	234	1
Cholera	1	1	5	4	1	...	...	...	...	...	...	...	...	...	...	...	2	2	...	...	...	...	...	...	...	...
Influenza	3	...	8	...	1	...	...	...	...	...	...	...	7	...	6	...	1	...	...	...	7	...	...	...	...	...
Erysipelas	2	...	14	1	12	1	8	...	4	...	2	...	13	...	19	...	10	...	23	2	7	...	18	...	5	...
Other Diseases of this Group ...	2	2	3	...	...	...	...	...	...	...	...	...	3	...	3	1	1	...	...	...	1	...	...	...	...	...
Total	1,019	28	1,698	23	1,142	12	951	9	365	3	1,052	6	3,991	9	1,716	4	2,196	15	1,615	11	4,161	7	886	3	295	3
Constitutional—																										
Rheumatism	98	...	133	...	148	...	40	...	77	...	107	...	272	...	263	...	359	...	211	...	86	...	152	...	95	...
Syphilis	194	...	574	...	570	...	107	...	207	...	167	...	412	2	156	...	197	...	203	...	116	...	247	...	197	...
Scrofula, Phthisis, &c.	29	6	37	5	53	7	4	1	2	1	6	1	39	5	30	4	11	1	17	2	36	...	46	2	14	1
Scurvy and Purpura	...	...	5	...	1	...	2	1	...	...	1	...	...	...	...	...	...	...	2	...	2	...	2	...	...	...
Anæmia	1	...	15	...	15	...	1	...	8	...	10	...	7	...	26	...	41	...	10	...	...	...	21	...	...	...
Other Diseases of this Group ...	4	1	1	...	2	...	...	...	1	...	...	...	3	1	3	1	3	1	3	...	2	...	4	1	1	...
Total	326	7	765	5	789	7	154	2	295	1	291	1	733	8	478	5	611	2	446	2	242	...	472	3	307	1

Ratio per 1,000 of Mean Strength

Stations	Presidency.		Allahabad.		Oudh.		Saugor.		Rohilcund.		Gwalior.		Meerut.		Sirhind.		Lahore.		Rawal Pindi.		Peshawar.		Depôts.		On the March.	
General Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile—																										
Eruptive Fevers	·4	...	6·0	·30	·8	...	3. 4	...	2·2	...	3·8	1·63	1·5	·21	8·6	...	·3	...	1·6	...	1·2	...	1·9	·62	·5	...
Continued ,, ...	287·0	8·40	176·6	3·62	175·1	2·28	120·3	5·97	90·0	1·10	54·2	1·08	105·3	1·06	118·3	·48	168·0	1.57	119·9	1·57	913·5	1·63	16·1	·62	25·1	·91
Paroxysmal ,, ...	66·5	·35	320·9	1·51	110·0	·51	680·9	1·70	106·0	·55	511·4	·54	730·4	·63	278·2	·24	518·3	2·52	294·5	·78	776·8	1·23	519·2	·62	106·7	·46
Cholera	·4	·35	1·5	1·21	·3	...	...	...	...	...	...	...	...	...	...	...	·6	·63	...	...	...	...	...	...	...	...
nfluenza	1·0	...	2·4	...	·3	...	...	...	...	...	...	...	1·5	...	1·4	...	·3	...	...	...	2·9	...	...	...	...	...
Erysipelas	·7	...	4·2	·30	3·0	·25	6·8	...	2·2	...	1·1	...	2·7	...	4·6	...	3·2	...	6·0	·52	2·9	...	11·1	...	2·3	...
Other Diseases of this Group ...	·7	·70	·9	...	...	...	...	...	...	...	...	...	·6	...	·7	·24	·3	...	...	...	·4	...	...	...	...	...
Total	356·7	9·80	512·5	6·94	289·5	3·04	811·4	7·67	200·4	1·65	570 5	3·25	842·0	1·90	411·8	·96	691·0	4·72	422·0	2·87	1697·7	2. 86	548·3	1·86	134·6	1·37
Constitutional—																										
Rheumatism	34·3	...	40·1	...	37·5	...	34·1	...	42·3	...	58·0	...	57·4	...	63·1	...	112·9	...	55·1	...	35·1	...	94 1	...	43·3	...
Syphilis	67·9	...	173·3	...	144·5	...	91·3	...	113·7	...	90·6	...	86·9	·42	37·4	...	62·0	...	53·1	...	47·3	...	152·8	...	89·0	...
Scrofula, Phthisis, &c.	10·1	2·10	11·2	1·51	13·4	1·77	3.4	·85	1·1	·55	3·3	·54	8·2	1·06	7·2	·96	3·5	·31	4·4	·52	14·7	...	28·5	1·24	6·4	·46
Scurvy and Purpura	..	...	1·5	...	·8	...	1·7	·85	...	...	·5	...	...	...	...	...	...	...	·5	...	·8	...	1·2	...	...	...
Anæmia	. 1	...	4·5	...	3·8	...	·9	...	4·4	...	5·4	...	1·5	...	6·3	...	12·9	...	2·6	...	...	...	13·0	...	...	...
Other Diseases of this Group ...	1.4	·35	·3	...	·5	...	...	...	·5	...	...	...	·8	·21	·7	·24	·9	31	·8	...	·8	...	2·5	·62	·5	...
Total	114·1	2·45	230·9	1·51	200·0	1·77	131·4	1·70	163·0	·55	157 8	·54	154·6	1·69	114·7	1·20	192·2	·62	116·5	·52	98·7	...	292·1	1·86	140·1	·46

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Except in the Oudh. Sirhind, Lahore, and Rawal Pindi Divisions, and in Troops on the March, the rates of admissions for general diseases are higher in all Divisions than those of the preceding year, the increase being greatest in the Meerut Division, in which it amounts to 497· per 1,000 men, it is also very large in the Saugor, Peshawar, and Allahabad Divisions; the excess on the rate of the preceding year is least in the Gwalior Division; in every instance, excepting in that of the last in which a preponderance of diseases of the constitutional group has raised the rate for the whole order, the higher rates of the present year are due to the increased prevalence of febrile diseases in the various Divisions; and it is to the diminished prevalence of those affections that the reduced rates on those of the preceding year in the Divisions first-named are due; in the Lahore Division, the rate of admissions for febrile diseases is 304· per 1,000 men lower than that of the corresponding one for 1873. The rate of deaths for diseases of the febrile group, is higher in the present, than in the preceding year, in the Presidency, Saugor, Rawal Pindi, and Peshawar Divisions, and lower in the remaining ones; the mortality from enteric fever has raised the proportion of deaths from febrile diseases as compared with the preceding year, but in certain Divisions—notably in that of Allahabad—the fewer deaths from cholera in 1874 have caused their death rates, even with the large increment due to the prevalence of enteric fever, to be lower than those of the preceding year. With respect to the rates of mortality of diseases of the constitutional group, the small number of deaths, in no Division exceeding 8, makes any deduction from their comparative height in one year, or another. of little value.

Eruptive Fevers.—The prevalence of fevers of this nature has been slight, though in some of the Divisions it was greater than in 1873; compared with that year, an increased prevalence occurred in the Presidency, Saugor, Rohilcund, Gwalior. Sirhind. and Rawal Pindi Divisions, and a reduced one in the others. Small-pox, and scarlet fever. gave the most numerous admissions, the first named disease prevailed more in the Allahabad than in any other Division. the greatest number of cases in any corps there being five, in the 2nd Battalion of the 19th Foot, but small-pox was also comparatively prevalent in the Saugor, and Morar Divisions, and cases of it occurred in the Oudh, Rohilcund, and Meerut Divisions, in Depôts, and amongst Troops on the March. Scarlet fever chiefly prevailed in the Sirhind Division, in which at Umballa. an epidemic outbreak, causing 37 admissions, occurred in the last quarter of the year, in the 4th Battalion of the Rifle Brigade; the measures of isolation practised, probably averted the spread of the disease to other corps at the station.

Continued Fevers, were more prevalent than in the preceding year in the Presidency, Allahabad, Saugor, Rohilcund, Meerut, and Peshawar Divisions; in the last named the proportion of admissions was more than three times greater, and in the first more than twice as great. The proportion of deaths from continued fevers is greater than in the preceding year in every Division excepting Oudh, Meerut, Sirhind, and Lahore, being those in which enteric fever was most prevalent in 1873; in the present year enteric fever having been more prevalent in other Divisions, the highest proportions of deaths from fevers in the continued group occur in them.

Enteric Fever.—As measured by the admissions into hospital on account of it, the prevalence of this disease in the Command exceeded that in the preceding year, by ·58 per 1,000 of the strength, but as the reports contain incidental notices which make it probable that many cases of enteric fever, were returned under other heads, the prevalence of this disease in the year is conjectural; as the first essential for combating the spread of any disease is to be exactly informed of the extent to which it prevails, it will be proper to quote here some of the notices referred to which are held to justify this remark.

(1.) The Medical Officer of a Battery of Artillery which suffered from enteric fever during the year, writes: "It is believed that a considerable number of "diseases returned under other headings were, in reality, cases of enteric fever, "but it was considered advisable not to alter the nomenclature in any instance "where any of the pathognomonic symptoms were wanting."

(2.) The Medical Officer of a regiment in which there was a severe outbreak of enteric fever, writes, respecting certain cases of other illness which occurred at the same time: "I would here submit a short statement of some of the cases *ngal*

"admitted, all suffering from symptoms nearly allied to those that were "diagnosed as enteric fever." The cases given are too long for literal transcription, but the following extracts fairly represent the main facts: "On "the 31st of August Serjeant ——— was suffering from intense headache, "temperature at 8 a.m. 102·1, tongue furred in the centre edges and margin "red, pulse 101 per minute, skin dry, bowels moderately loose, slight tenderness in iliac fossa, no gurgling." Treated with large doses of quinine the patient did well, and was discharged from hospital in 14 days, but it is not stated that he was discharged to duty. The second case in the series was "a "patient admitted to hospital, 14th August, suffering from rheumatism. On the "morning of the 25th complained of having passed a very restless night, with "great headache, intense thirst, temperature 103·, pulse 92, tongue furred in "centre and at edges, no rash or spot of any sort visible, bowels moved twice "during the night, complained of great weakness and prostration." In the next case the symptoms on admission were "intense headache and debility, tongue "furred, bowels naturally open, slight tenderness in iliac fossa with gurgling, "temperature 103·, pulse 102·"; and respecting the case it is further stated that "there were some very suspicious spots, not sufficiently developed to admit of "a decided opinion." In the two cases next given the symptoms, summarised nearly in the words of the Medical Officer were, intense headache, loss of appetite, diarrhœa, abdominal tenderness, centre of tongue furred and fissured edges of a bright red. All the men in the series of cases given as examples recovered; for comparison with them the Medical Officer details the symptoms in each of eight cases returned as enteric fever; it is unnecessary to transcribe more than one—that of a man who died; on admission, he complained of, "intense headache, complete anorexia, looseness "of bowels, slight tenderness of abdomen, tongue coated with thick creamy fur, "pulse 92, eyes suffused, skin hot."

(3.) Respecting two deaths returned as due to fever, occurring in another regiment in which at the same time enteric fever prevailed, the Medical Officer states that the symptoms in the first were "pains in head and back, great "labour in breathing amounting to a heaving of his chest, tongue pale white and "tremulous, pulse soft (96), skin hot and dry, tendency to syncope, faculties confused, eyes congested, bowels loose, temperature 104·3; he continued getting "gradually worse, the fever being almost continued with only a slight remission towards morning until the seventh night when violent delirium set in; "on the ninth day he passed several flaky light-coloured stools, on the tenth day "bronchitis supervened." After death the following appearances were noted in the intestines: "Stomach and large intestine healthy, lower portion of "ileum congested, Peyer's patches enlarged, some small ulcers, about the size "of a millet seed, near the cœcum." In the second instance the symptoms are stated to have been headache, and general malaise, with depressed spirits for a few days before admission, and that "on the 4th day after admission "gurgling and tenderness were detected in both iliac fossa," the patient died in a state of collapse. The appearances in connection with the intestines noted after death, were "omentum and peritonæum presented an inflamed "appearance, and chiefly about the lower part of the ileum, in the lower "portion of the jejunum there were several patches of ulceration, and the "bowel had been perforated in no less than six places."

(4.) In a fatal case occurring at a station where enteric fever was present, though not in the corps to which the man belonged, the symptoms observed during life are not given; but the proximate cause of death was peritonitis, caused by perforating ulcers in the intestine, about 18 inches above the ileocœcal valve.

(5.) In another regiment in which there were two admissions from enteric fever, one death is also returned as due to remittent fever, and the following remarks respecting it occur in the report of the Medical Officer: "Admitted "13th June with bronchitis; 28th June, fever supervened, rapidly developed, "and became of a low remittent type." The appearances in the small intestine are thus described "intestines, lower part of ileum congested, solitary glands, and "Peyer's patches, congested and ulcerated, and just above cœcum large patches "of ulceration with deposits of hard yellow looking material."

(6.) In another regiment in which there were three admissions for enteric

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fever, all the cases being fatal, there were also two deaths from simple continued, and one from remittent fever, occurring at the time that enteric fever prevailed; in the instance of the case of remittent fever the immediate cause of death was peritonitis; amongst the symptoms in one of the fatal cases of simple continued fever, were epistaxis, hæmorrhage from the bowels, and diarrhœa; in the other fatal case of simple continued fever, it is stated that enteric fever was suspected during life, but the post-mortem examination did not shew a diseased condition of Peyer's patches, the mesenteric glands, however, were enlarged, and in particular, one near the caput cœci shewed morbid action.

When it is considered that in a majority of the reports from regiments returning admissions from enteric fever in the year, either no remarks are made concerning them, or only the statement that so many cases occurred, it will be apparent that the extracts from the reports in 1874 given above afford strong grounds for suspecting that enteric fever prevailed in the Bengal Command, to an extent far exceeding that for which there is statistical evidence.

In the following Table the stations in the Command at which admissions and deaths from enteric fever took place, and the quarters of the year in which they occurred, are shewn; having been compiled from the Quarterly Returns, the admissions are fewer than those stated in the Annual Returns:—

Divisions.	Stations.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
		Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
Presidency ..	Calcutta ..	..	..	..	..	1	..	..	..	1	..
	Dum-Dum ..	..	..	..	..	2	2	..	1	2	3
	Barrackpore ..	..	..	2	1	3	2	1	..	6	3
	Hazaribagh ..	2	2	10	4	22	12	1	..	35	18
	Total ..	2	2	12	5	28	16	2	1	41	24
Allahabad ..	Allahabad ..	..	..	..	..	1	1	1	..	2	1
	Dinapore ..	4	1	5	4	..	..	..	..	9	5
	Benares ..	..	..	1	1	1	..	..	..	2	1
	Cawnpore ..	..	..	..	..	1	1	..	2	1	3
	Total ..	4	1	6	5	3	2	1	2	14	10
Oudh ..	Lucknow ..	..	..	6	3	9	4	3	..	18	7
	Fyzabad ..	6	1	1	..	2	..	1	..	10	1
	Total ..	6	1	7	3	11	4	4	..	28	8
Saugor..	Saugor ..	..	..	..	..	..	..	9	4	9	4
	Nowgong ..	..	..	4	2	..	..	..	..	4	2
	Total ..	..	..	4	2	..	..	9	4	13	6
Gwalior ..	Jhansi ..	1	..	5	2	..	..	..	..	6	2
Rohilcund ..	Ranikhet ..	..	..	..	..	4	2	..	..	4	2
Meerut ..	Meerut ..	2	..	5	1	5	2	8	1	20	4
Sirhind	Umballa ..	1	..	1	..	4	2	1	..	7	2

Divisions.	Stations.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
		Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
Lahore ..	Meen Meer ..	..	..	1	1	..	..	..	..	1	1
	Ferozepore ..	..	..	..	..	1	..	..	..	1	..
	Bhagsu ..	..	..	1	..	..	..	..	..	1	..
	Total ..	..	..	2	1	1	..	..	..	3	1
Rawal Pindi	Rawal Pindi	..	..	2	1	2	2	..	..	4	3
	Fort Attock ..	..	..	2	1	..	..	..	1	2	2
	Kooldunnah ..	..	..	1	..	..	..	..	..	1	..
	Chungla Gully	..	..	1	1	..	..	..	..	1	1
	Total ..	..	..	6	3	2	2	..	1	8	6
Peshawar ..	Peshawar ..	..	..	6	3	4	1	2	..	12	4
Depôts.. ..	.. ..	..	..	2	..	..	..	1	1	3	1
Troops on the March	.. ..	5	1	..	..	..	..	1	..	6	1
	Total in the Command	21	5	56	25	62	31	29	10	168	71

The proportion of deaths to strength caused by enteric fever exceeds that of any other disease, excepting only abscess of the liver, but if the proper corrections could be made (those of the necessity for which evidence has been given), it is beyond question that enteric fever would be shewn to be the most fatal disease to which the troops in Bengal in 1874 were exposed; nor does the loss by death exhaust the injury accruing to the troops through its prevalence; the lingering, and often interrupted stage of convalescence after an attack of this disease, and the liability of those who do recover to have latent tubercule excited into activity, give great additional importance to the disease.

Enteric fever was present in every Division in the Command, it also attacked Troops on the March, and appeared at convalescent Depôts; its proportional prevalence was greatest in the Presidency, Saugor, Oudh, and Meerut Divisions, and least in those of Sirhind and Lahore; the most serious outbreaks of the disease occurred in the two first-named Divisions, in the others there were attacks at most of the stations where it prevailed in the preceding year, and with only one notable exception—that of the 1st Battalion 11th Foot—all the corps then affected, suffered again in the present year, though in a considerably less degree. At Hazaribagh, in the Presidency Division, in which there were 5 admissions in the preceding year, an outbreak of the disease occuring in the 2nd Battalion 22nd Foot began in the first quarter of the year, increased in severity in the second, and reached its highest point in the third quarter; in the fourth quarter, in the second month of which the regiment left the station, there was only one admission. In all, 35 admissions and 18 deaths are returned as due to enteric fever in the 2nd Battalion 22nd Regiment, the Medical Officer remarks that during the prevalence of the disease "a number "of men were suffering from debility, in fact the health of the whole regiment "was visibly and seriously impaired." The regiment was in its first year of Indian service, and more than two-thirds of the men composing it were under 25 years of age. Enteric fever, attacked the men of three particular companies of the regiment with disproportionate frequency, one company especially so, and it was in consequence encamped for a time. No special remarks are made respecting the health of the officers, women, or children of the regiment, during the outbreak of enteric fever amongst the men, but it is presumed that the disease did not appear except amongst the soldiers of the regiment.

In the Presidency Division, an outbreak of enteric fever, less serious than that at Hazaribagh, occurred also at Barrackpore, amongst the men of the Royal Artillery.

The outbreak in the Saugor Division, occurred at Saugor, in the F Battery 11th Brigade Royal Artillery, the first admission being returned in the last quarter of the year, the following statement occurs in the report of the Medical Officer: " Continued fever had occurred almost from the date of the " arrival of the battery in Saugor; the cases were characterized by febrile " symptoms, dyspepsia, diarrhœa, and tedious convalescence, but pathogno- " monic symptoms of enteric fever were uniformly absent." In this instance undoubted attacks of the disease occurred amongst the wives of the soldiers, before those returned amongst the men. The battery arrived in India in the beginning of the year, and the deaths were all amongst men under 22 years of age. In the same Division a more limited outbreak of enteric fever occurred in the second quarter of the year at Nowgong, in the G Battery of the same Brigade of Artillery, also newly arrived in India; the first case appeared on the line of march from Allahabad.

In the Oudh Division, the greatest number of admissions occurred at Lucknow, where it would almost appear that the disease never dies out; in the present year 10 of the admissions there occurred in the 40th Foot, but no corps stationed at Lucknow had an immunity from the disease. At Fyzabad, in the same Division, 12 admissions from enteric fever are returned in the 51st Foot, the regiment in which a severe outbreak occurred in 1873; the prevalence of the disease at this station was greatest in the first quarter of the year, but there was no quarter without an admission.

In the Meerut Division, at Meerut, admissions from enteric fever occurred in every quarter of the year, but the greatest number was in the last, in December, when admissions were returned in the 85th Foot, all of them being amongst the men of a detachment which had just arrived from Fatehgarh, a place at which the disease had not been observed during the residence of the detachment at it, and as enteric fever appeared among the men of the relieving detachment after arrival at Fatehgarh, although the station of Meerut was free from it at the date of its departure, there is reason to believe that the disease in the 85th, at Meerut, was acquired on the march.

Respecting the incidence of enteric fever, there is a general agreement in the reports which mention the subject at all, that young soldiers, and especially those recently arrived in India, suffered most; that they should do so is quite in accordance with what is observed in connection with this disease in other countries; though not confined to young persons, it is more commonly met with amongst them than amongst those more advanced in life, which latter class also probably contains a great number who may have already had the disease; it is also a matter of experience that new comers in all places are exceptionally liable to suffer from diarrhœal disease if that be prevalent, and no doubt this holds good in Bengal. But in the reports of some Medical Officers there are notices which seems to indicate their belief that enteric fever, as seen in Bengal, is, in a special sense, a climatic disease. As no proof for this theory is offered it would not be necessary to notice it, were there not danger that the practical effect of its acceptance would be to paralyze efforts to control this form of fever; it may be well therefore, to recall to the mind of those who, having seen enteric fever prevailing in apparently well ordered barracks, where no cause for its appearance was detected, are inclined to adopt the climatic theory of its origin, that enteric fever as seen in India, does not differ in any particular, from the same disease as seen in cold, and in temperate climates, the same symptoms, and identical morbid lesions, characterize it in every country; overwhelming evidence exists to shew that it has its origin in the vitiation of air or water by excremental pollution. It is quite conceivable— most probable even—that an extreme heat may intensify the infective influence ngal. which gives birth to enteric fever, and may determine its greater extension, in tropical, than in temperate countries, amongst susceptible persons, particularly amongst the newly arrived, in whose constitutions an unaccustomed heat must produce a weakening disturbance; but it is opposed to all analogy to infer, that this specific fever, may be the effect of one cause in the cold of Canada, and of another, in the heat of Bengal. If any new facts respecting the origin of enteric fever come to light, all who are cognizant of them render a service in reporting them, but until the number and force of the facts overthrow the belief regarding its causation now so generally held, it cannot but be right to act on the evidence that enteric fever may be averted, or, if it has broken out, may generally be limited by suitable sanitary measures; and though admittedly, there are not infrequent instances where such measures, though most intelligently applied, fail to repress the disease, the failure must be ascribed rather to an imperfect acquaintance with the whole problem of the particular outbreak, than to an erroneous conception of its cause.

Simple Continued Fever.—The admissions exceed by more than a third those in the preceding year, and the proportion is preserved if the admissions for febricula in both years, are taken with those for simple continued fever.

Dengue.—This form of fever, appeared only in the Lahore, and in the Meerut Divisions. In the first named, there were 2 admissions in the D Battery 8th Brigade Royal Artillery, in the second quarter of the year; and in the last-named in the third quarter, there were 5 admissions in the A Battery 19th Brigade Royal Artillery, and 8 in the 59th Foot, both stationed at Agra; at the neighbouring station of Muttra, the disease occasioned 30 attacks in men of the 10th Hussars.

Paroxysmal Fevers, were more prevalent than in the preceding year in the Allahabad, Oudh, Saugor, Rohilcund and Meerut Divisions, and in Depôts, but less so in the remaining ones; the rate of prevalence in the Oudh Division is nearly two-thirds greater than in 1873; a decrease, amounting to 389· per 1,000 men, occurs in the Peshawar Division. The rate of mortality due to fevers in this group, is greater than in the preceding year, in the Allahabad, Oudh, Meerut, and Rawal Pindi Divisions, and in Troops on the March.

Cholera.—This disease appeared in the following Divisions: Presidency (1 admission), Allahabad (5), and Lahore (2), and Oudh (1). Five of the attacks occurred at Dinapore, four of them being in the 109th Foot; in the Lahore Division, single cases occurred at Mooltan, and at Ferozepore. Two attacks took place in the first quarter of the year, one at Calcutta, and one at Lucknow; three in the second quarter, all at Dinapore; three in the third quarter, two being at Dinapore, and one at Mooltan, and one in the fourth quarter at Ferozepore.

Rheumatism, was more prevalent than in 1873, in the Presidency, Saugor, Rohilcund, Gwalior, Meerut, Lahore, and Rawal Pindi Divisions, in Depôts, and in Troops on the March, the increase however was trifling except in the instance of Lahore, in which the excess of proportional prevalence is 66 per 1,000 men. In this Division, the 36th Foot furnished the largest number of admissions.

Syphilis.—Excepting in Sirhind, where the rate is only about two-thirds of that in 1873, there was an increased prevalence in every Division of the Command, in some instances a considerable one, the greatest, being that in Rohilcund, 71·7 per 1,000 men.

Scrofula, Phthisis, &c.—The rate of prevalence is higher than in 1873 in the Allahabad, Saugor, Meerut, and Peshawar Divisions, and in Troops on the March, but lower in the remaining ones.

Anæmia.—The highest rate of prevalence for this disease in any Division that of Lahore, is 12·9 per 1,000 men, but this only represents 41 admissions, 32 of which were returned by the 92nd Foot at Mooltan.

Local Diseases.—*Diseases of the Nervous System*, are in a higher rate than in the preceding year, in the Gwalior, and Lahore Divisions, and in Depôts, in all others the rate of prevalence is lower, in most instances considerably so. The highest rate in the present year, that of Lahore, exceeds the lowest, that of Saugor, by 19·4 per 1,000 men. In this order neuralgia, caused nearly half of the admissions, its greatest prevalence was in the Lahore Division.

The rate of deaths is higher than in 1873, in the Presidency, Saugor, Rohilcund, Lahore, and Rawal Pindi Divisions, and in Troops on the March, the highest being that in the Presidency; the diseases which caused most deaths in this order were apoplexy, and sunstroke. Two deaths were due to hydrophobia, —one in the D Battery 8th Brigade Royal Artillery at Meen Meer, and one in the 1st Battalion 3rd Foot at Calcutta.

Diseases of the Eye.—The rate of admissions is greater than in the preceding year in all the Divisions, excepting Rohilcund, Meerut, Rawal Pindi, and Peshawar, and in Depôts; the two highest rates, those of the Presidency, and Oudh, exceed the lowest, that of Rohilcund, by more than two thirds. In the first-named Division, nearly four-fifths of the admissions were in the 2nd Battalion 22nd Regiment, at Hazaribagh, in which corps conjunctivitis seems to be endemic; though in the Oudh Division, the rate is as high as that of the Presidency, there is this difference, that diseases of the eye were not confined to one corps, but were general in the Division.

Diseases of the Circulatory System.—Diseases of this group are in a higher proportion than in 1873, in the Oudh, Meerut, Rawal Pindi, and Peshawar Divisions, in Depôts, and in Troops on the March; the rate of the last-named Division is four-fold greater than in that year, and it is also seven times greater than the lowest rate in the present year, that of Saugor; in Peshawar conjoined with the highest rate of admissions is the lowest rate of deaths, it being less than the half of the next lowest, and more than five times lower than that of the Lahore Division, the highest in the year. The comparative prevalence of diseases of the circulatory system in Peshawar, was due to the relative frequency of palpitation amongst the troops generally, though in the 72nd Foot, the prevalence was somewhat greater than in any other corps; a comparison shews that the rate of admissions for palpitation in Peshawar, is 43·6, and in Saugor, ·8 per 1,000 men. For the very low death rate from diseases of the circulatory system in Peshawar, only a conjectural explanation can be given, that men suffering from disease originating in the Division, may have died elsewhere.

Diseases of the Respiratory System, are in a higher rate of prevalence in the Allahabad, Saugor, Gwalior, Meerut, Lahore, and Peshawar Divisions, and in Depôts; the highest rate, that of Peshawar, the most northerly Division, exceeds that of the Presidency, the most southerly one, by 75·7 per 1,000 men; the difference in the proportion of deaths in the two Divisions, however is trifling.

Diseases of the Digestive System.—The rate of admissions for diseases of this order is higher than in 1873, in the Allahabad, Saugor, Gwalior, Meerut, Sirhind, and Peshawar Divisions, and in Troops on the March; the increase is greatest in Saugor, amounting to 110·6 per 1,000 men, in the other Divisions it is inconsiderable. The rate of Allahabad, is the highest of any Division, it exceeds that of Saugor, the next highest by 38·9, and that of Lahore, the lowest, by 157·2 per 1,000 men; an increase in the proportion of deaths, on that of the preceding year, co-exists with an increased admission rate in the Allahabad Saugor, and Meerut Divisions, whilst a lower death rate is in connection with an increased admission rate in the Gwalior, Sirhind, and Peshawar Divisions.

The relative prevalence of, and proportion of deaths from, dyspepsia, dysentery, diarrhœa, and hepatitis, in the several Divisions, are shewn in the first of the following Tables, in the second the connection between the prevalence and fatality, of the three last-named diseases and the seasons of the year is exhibited;—

Ratio per 1,000 of the Strength.

Divisions.	Presidency.		Allahabad.		Oudh.		Saugor.		Rohilcund.		Gwalior.	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Dysentery	49·7	1·05	49·8	1·51	42·8	1·77	20·5	...	13·7	...	15·7	·54
Diarrhœa...	52·9	...	92·1	·60	66·7	...	62·2	...	41·7	·55	34·7	...
Hepatitis and Abscess of the Liver	28·0	2·79	55·8	3·32	45·9	2·28	75·1	5·11	46·7	4·94	41·2	·54
Total	130·6	3·84	197·7	5·43	155·4	4·05	157·8	5·11	102·1	5·49	91·6	1·08
Dyspepsia	37·1	...	55·5	...	46·6	...	64·8	...	32·9	...	40·7	...

Divisions.	Meerut.		Sirhind.		Lahore.		Rawal Pindi.		Peshawar.		Depôts.		Troops on the March.	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Dysentery	26·6	1·69	9·6	...	11·9	·63	14·6	..	30·2	·41	28·4	·62	20·5	·16
Diarrhœa	55·9	...	48·4	·24	42·8	...	26·6	...	48·9	...	58·1	...	25·5	...
Hepatitis and Abscess of the Liver	57·5	3·37	27·4	1·19	43·1	2·20	51·8	1·83	33·5	·81	72·4	3·71	17·3	1·37
Total ...	140·0	5·06	85·4	1·43	97·7	2·83	93·0	1·83	112·6	1·22	158·9	4·33	63·3	1·83
Dyspepsia	45·8	...	41·5	...	27·1	...	39·7	...	35·9	...	19·8	...	8·2	...

	Hepatitis, including Abscess of the Liver.				Dysentery.				Diarrhœa.				Total.			
	Number.		Ratio per 1,000 of Strength.		Number.		Ratio per 1,000 of Strength.		Number.		Ratio per 1,000 of Strength.		Number.		Ratio per 1,000 of Strength.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Ist Quarter	279	15	7·8	·41	169	6	4·4	·17	231	1	6·4	·03	679	22	18·6	·61
IInd ,, ...	414	18	11·0	·48	247	6	6·6	·16	509	1	13·5	·03	1,170	25	31·1	·67
IIIrd ,, ...	533	25	14·2	·67	340	9	9·1	·24	831	2	22·2	·05	1,704	36	45·5	·96
IVth ,, ...	429	32	11·4	·85	223	8	5·9	·21	335	..	8·9	..	987	40	26·2	1·06

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Diseases of the Urinary System.—Except in the Saugor, Sirhind, Lahore, Rawal Pindi, and Peshawar Divisions, and in Troops on the March, in each of which a slight reduction is seen, the rate of admissions for diseases of this group is everywhere higher than in the preceding year, the excess is greatest in Allahabad, in which it amounts to 65·8 per 1,000 men, and in Oudh, in which it is 52·3 ; the higher rates of the whole group are due to the increased prevalence of gonorrhœa.

Diseases of the Cutaneous System.—In every Division excepting Gwalior, Sirhind, Lahore, Peshawar, and in Troops on the March, the rate of admissions for diseases of this group exceeds that of 1873 ; the greater prevalence of ulcers, and to a lesser extent of boils, accounts for the increase, which is greatest in the Saugor, and Allahabad, Divisions. Among the admissions 18 were from Delhi ulcer ; one-third of the whole number occurred in the 7th Battery 13th Brigade Royal Artillery, part of which had previously served at Lahore, where, as in Delhi, the same peculiar ulcer is endemic. Four admissions from Delhi ulcer occurred in the 109th Foot at Dinapore, in a wing of the regiment which in the year before had served at Delhi. Three admissions occurred at Mooltan, where also the Delhi ulcer is endemic. No admissions are returned from the station of Delhi itself. Previously to 1870 this affection was classed with ulcers generally, its comparative prevalence can therefore only be shewn for the years 1870-74 ; the admissions for Delhi ulcer in the present year are in a rate not quite a third of that of the corresponding one of the year 1870, as will be seen in the following Table :—

Admissions from Delhi Ulcer.

Year.	Number of Admissions.	Ratio of 1,000 of Strength.
1874	18	·47
1873	17	·46
1872	34	·92
1871	52	1·47
1870	48	1·48

The Medical Officers do not allude to the subject of the decreased prevalence of Delhi ulcers, of late years.

Conditions, &c.—The rate of admissions on account of debility, as compared with the corresponding one of the preceding year, is higher in the Presidency, Saugor, and Peshawar Divisions, and in Troops on the March, and lower in the remaining ones. In the Presidency, the prevalence of debility was connected with the outbreak of enteric fever in that Division, more than two-thirds of the admissions in it occurred in the 2nd Battalion 22nd Foot ; the greatest increase in prevalence, however, was in the Peshawar Division, the rate of which exceeds that of 1873 by 35·6 per 1,000 men ; the admissions there were proportionately most numerous in the 72nd Foot.

Poisons.—The admissions in this class are in a higher rate than in the preceding year in all Divisions excepting Allahabad, Sirhind, Lahore, and Peshawar, and in Troops on the March, in the Gwalior Division, the rate is the same in both years. The two highest rates are those of Allahabad, and Rohilcund, 5·1 and 5· respectively ; that of the former exceeds the rate of the lowest, the Gwalior Division, by 4· per 1,000 men.

The admissions and deaths in the several corps, serving in the Bengal Command in 1874, as given by the Principal Medical Officer, were as follows :—

Corps.	Stations.	Average Annual Strength.	Average Daily Sick.	Admitted.	Deaths.		Invalided.	Ratio per 1,000 of Strength.			
					In India.	Of Invalids.		Average Daily Sick.	Admitted.	Died.	Invalided.
4th Hussars ...	Rawal Pindi	464	19·83	497	2	...	25	42·74	1071·	4·31	53·88
5th Lancers ...	Sialkot	379	13·18	239	2	1	18	34·77	631·	7·92	47.49
10th Hussars ...	Muttra	491	32·09	513	7	...	15	65·35	1045·	14·25	30·55
11th ,, ...	Umballa	456	26·60	703	2	1	37	58·33	1542·	6·58	81·14
13th ,, ...	Lucknow	392	31·22	593	8	...	...	79·64	1513·	20·41	...
15th ,, ...	Meerut	475	39·14	1024	8	...	32	82·40	2156·	16·84	67·37
	Total Cavalry ...	2,657	162·06	3,569	29	2	127	60·99	1343·2	11·67	47·79
ABrigade R.H.A. ...	Hd.-Qrs. at Umballa ..	776	44·93	1,228	7	...	28	57·90	1582·	9·02	36·08
A Bat. C Brg. R.H.A.	Meerut	158	12·35	355	4	...	5	78·16	2247·	25·32	31·65
F Brigade R.H.A ...	Hd.-Qrs at Peshawar ...	777	31·92	1,191	9	...	30	41·08	1533·	11·58	38·61
3rd Bat. 5th Brg. R.A.	Calcutta	81	5·57	107	2	...	...	68·77	1321·	24·69	...
8th Brigade R.A. ...	Hd.-Qrs. at Meerut ...	1,233	71·33	2,418	33	2	35	57·85	1961·	28·39	28·39
11th ,, ,, ...	,, at Barrackpore ...	892	92·49	2,451	41	...	...	103·69	2748·	45·96	...
13th ,, ,, ...	,, at Meen Meer ...	608	31·10	914	10	...	41	51·15	1503·	16·45	67·43
19th ,, ,, ...	,, at Lucknow ...	1,103	60·90	1,616	12	1	45	55·21	1465·	11·79	40·80
23rd ,, ,, ...	,, at Morar... ...	613	39·31	843	9	1	40	64·13	1375·	14·68	65·25
	Total Artillery ...	6,241	389·90	11,123	127	4	224	62·47	1782·2	20·99	35·89
1st Foot, 2nd Bn. ...	Ranikhet	878	33·36	763	14	...	44	38·00	869·	15·95	50·11
3rd ,, 1st ,, ...	Calcutta	876	38·00	788	14	...	46	43·38	900·	15·98	52·51
5th ,, 1st ,, ...	Bareilly and Allahabad ...	963	38·65	1,016	10	1	30	40·13	1055·	11·42	31·15
6th ,, 1st ,, ...	Sialkot	929	54·21	1,379	7	2	42	58·35	1484·	9·69	45·21
8th ,, 1st ,, ...	Chakrata	927	39·24	839	12	...	23	42·33	905·	12·94	24·81
9th ,, 2nd ,, ...	Rawal Pindi	82	1·91	108	3	...	...	23·29	1317·	36·59	...
11th ,, 1st ,, ...	Subathu	885	33·30	585	5	...	26	37·63	661·	5·65	20·38
12th ,, 2nd ,, ...	Ferozepore	869	55·14	958	17	3	32	63·45	1102·	23·02	36·82
14th ,, 1st ,, ...	Sitapur	551	44·01	774	1	1	28	79·87	1405·	6·57	50·82
14th ,, 1st ,, Wing	Benares	362	22·12	435	4			61·10	1202·		
17th ,, 1st ,, ...	Peshawar	877	59·94	2,380	11	...	33	68·35	2714·	12·54	37·63
18th ,, 1st ,, ...	Bareilly	114	2·23	105	...	...	...	19·56	921·	...	...
19th ,, 2nd ,, ...	Allahabad	851	60·30	1,208	10	1	37	70·86	1420·	12·93	43·48
22nd ,, 2nd ,, ...	Hazaribagh	878	54·79	1,024	32	...	2	62·40	1166·	36·45	2.28
25th ,, 2nd ,, ...	Jubbulpore...	786	34·21	815	7	...	27	43·52	1037·	8·91	34·35
26th ,, ...	Morar	744	29·89	738	7	...	23	40·17	992·	9·41	30·91
36th ,, ...	Meen Meer	575	38·43	1,326	8	...	83	66·83	2306·	13·91	144·3

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Corps.	Stations.	Average Annual Strength.	Average Daily Sick.	Admitted.	Deaths.		Invalided.	Ratio per 1,000 of Strength			
					In India.	Of Invalids.		Average Daily Sick.	Admitted.	Died.	Invalided.
36th Foot, Wing ...	Solon and Dagshai ...	313	19·36	534	5	...	...	61·85	1706·	15·97	...
37th ,, ...	Dagshai	851	28·22	547	6	...	21	33·16	643·	7·05	24·68
39th ,, ...	Peshawar and Nowshera...	930	52·48	1,718	5	...	10	56·43	1847·	5·38	10·75
40th ,, ...	Lucknow	919	59·05	1,250	19	2	30	64·25	1360·	22·85	32·64
41st ,, ...	Mooltan	71	4·29	53	1	2	...	60·42	746·	42·25	...
51st ,, ...	Fyzabad	918	60·25	1,193	9	...	25	65·63	1300·	9·80	27·23
54th ,, ...	Jullundur and Morar ...	932	53·61	665	6	...	34	57·52	713·	6·44	36·48
55th ,, ...	Roorkee	471	18·08	468	8	...	28	38·39	994·	16·99	59·45
55th ,, Wing ..	Delhi	429	22·93	917	7	...	...	53·45	2137·	16·32	...
58th ,, ...	March to Bombay	97	1·77	73	2	...	...	18 25	752·	20·62	...
59th ,, ...	Agra...	827	47·26	1,140	7	...	79	57·15	1378·	8·46	95·53
60th ,, 2nd Bn. ...	Murree and Koolduna ...	974	37·07	798	14	...	30	38·06	819·	14·37	30·80
62nd ,, ...	Dum-Dum	865	47·58	736	15	...	29	55·00	851·	17·34	33·53
63rd ,, ...	Jhansi	933	57·86	1,666	17	1	28	62·01	1786·	19·29	30·01
65th ,, ...	Lucknow	935	55·75	900	16	2	23	59·63	962·	19·25	24·60
70th ,, ...	Rawal Pindi	873	48·53	1,010	10	2	50	55·59	1157·	13·75	57·27
72nd ,, ...	Peshawar	866	54·43	2,285	7	...	59	62·85	2639·	8·08	68·13
73rd ,, ...	Cawnpore	821	75·33	1,394	20	...	4	91·75	1698·	24·36	4·87
81st ,, ...	Jullundur	142	1·15	140	...	...	...	8·10	986·	...	...
85th ,, ...	Meerut	874	64·93	1,803	12	2	41	74·29	2070·	16·02	46·91
92nd ,, ...	Mooltan	843	52·27	1,207	11	...	12	62·00	1432·	13·05	14·23
109th ,, ...	Dinapore	1,000	62·91	1,720	24	2	39	62·91	1720·	26·00	39·00
Rifle Brigade, 4th Bn.	Umballa	864	45·35	1,351	7	...	2	52·49	1564·	8·10	2·31
41st Co. R.E. ...	Roorkee	79	·39	22	1	...	1	4·94	278·	12·66	12·66
	Total Infantry ...	28,974	1610·58	38,837	391	21	1,021	55·59	1337·0	14·22	35·24
Convalescent Depôt	Darjeeling	175	12·25	230	1	...	...	70·00	1314·	5·71	...
,, ,,	Naini Tal	263	16·64	382	4	...	...	63·27	1452·	15·21	...
,, ,,	Pachmarhi	43	5·47	179	...	...	...	127·21	4163·	...	...
,, ,,	Landour	161	13·22	132	4	...	...	83·11	820·	24·84	...
,, ,,	Kasauli	380	32·59	691	7	...	...	85·76	1818·	18·42	...
,, ,,	Dalhousie	269	26·67	306	3	...	...	99·14	1138·	11·15	...
,, ,,	Murree	304	30·82	929	6	...	...	101·39	3056·	19·74	...

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The Royal Artillery, was the least healthy arm of the service; it shews the highest admission, death, and daily sick rates; its rate of invaliding, however, is lower than that of the Cavalry. The least healthy Brigade of Artillery, was the 11th, Batteries of which were stationed at Barrackpore, Dum-Dum, Allahabad, Dinapore, Benares, Saugor, and Nowgong. The proportion of admissions, 2748· per 1,000 men, exceeds that of the average of all arms in the Command, by 1332·, and its proportion of deaths, 45·96 per 1,000 men, is three times greater than that for all arms; on an average, nearly one-ninth part of the men were constantly in hospital. The great excess of sickness in this Brigade was due to fevers, most of the cases of which are returned as simple continued fever; the deaths were chiefly due to enteric fever (14), to sunstroke (7), and to abscess of the liver (7).

In Cavalry, the 15th Hussars stationed at Meerut, has the highest admission rate, the highest average proportion of daily sick, and the second highest death, and invaliding rates; this corps had the highest proportion of admissions in the preceding year also; in the present year the rate exceeds that of the regiment having the next highest 614· per 1,000 men; more than half of the admissions during the year were caused by ague. The highest death rate in any regiment of Cavalry, 20·41 per 1,000 men, is that of the 13th Hussars stationed at Lucknow, four of the deaths were caused by enteric fever. The fact that the regiment sent away no invalids during the year, perhaps accounts for its relatively high death rate. The 11th Hussars, stationed at Umballa, has the highest invaliding rate; 7 men were sent home for anæmia, and 9 for palpitation, during the year. The 5th Lancers stationed at Sialkot, was the healthiest Cavalry corps in the year; its proportions of admissions, and of daily sick, are the lowest, its death rate, though not the lowest, is very low, being barely more than one-third of the average rate of the whole force, and its invaliding rate, does not exceed that of the average for Cavalry.

In Infantry, no regiment unites all, or even two, of the highest proportions of loss caused by sickness; the highest admission rate, is that of the 1st Battalion 17th Foot, at Peshawar, the highest death rate of any regiment stationed in the Command for the whole year, is that of the 2nd Battalion 9th Foot at Rawal Pindi, the highest invaliding rate is that of the 36th Foot at Meen Meer, whilst the highest rate of daily sick, is that of the 73rd at Cawnpore. Taking into consideration its very high admission, and invaliding rates, the 36th was probably the unhealthiest corps of infantry in the year, 39 of the invalids from this regiment were sent home on account of debility. The lowest rate of daily sick, 23·29, is that of the regiment having the highest death rate, the 2nd Battalion 9th Foot; the lowest admission rate is that of the 37th Foot at Dagshai; the lowest death rate of any regiment stationed a whole year in the Command, is 5·38, that of the 39th Foot, at Peshawar and at Nowshera. The lowest invaliding rates are those of the 2nd Battalion 22nd Foot and the 4th Battalion of the Rifle Brigade at Umballa. The 1st Battalion of the 11th Foot at Subathu, and the 37th Foot at Dagshai, (both being hill stations), were the healthiest regiments, having the lowest admission rates, and death rates only fractionally higher than one-half the average, whilst the daily sick, and invaliding rates, are both low. Of regiments stationed in the plains, the 26th Foot at Morar, having low proportions in all the four particulars, may be considered to have been the healthiest corps of Infantry in 1874.

SANITARY REPORT.

Dr. Crawford, officiating for the Surgeon-General and Principal Medical Officer of the British Forces serving in Bengal, reports:—The sanitary defects at the several stations in the Bengal Command are stated in detail in the Annual Reports of administrative Medical Officers of Circles, from which the following summary is compiled.

PRESIDENCY CIRCLE.—*Calcutta.*—Limited hospital accommodation for women and children; cook-houses of Dalhousie Barracks unpleasantly close to the latrines; bad construction of Queen's Barracks for married people; objectionable state of latrine in south-west corner of fort—being on the effluent side of an open sewer—are the chief sanitary defects noticed.

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Dum-Dum.—The introduction of municipality water; verandahs to east and west side of guard-room; better canteen accommodation; a gymnasium; and improved conservancy arrangements for native bazaar, outside but close to cantonments, are recommended.

Barrackpore.—Barracks occupied by detachment 62nd Regiment scarcely waterproof; the hospital is an old thatched building raised about three feet from the ground over a hollow basement chamber; the flooring of the wards is old and the planks widely separated, so that water and other fluids, as well as refuse of all kinds, pass down into the basement whence foul air escapes into the wards. The ventilation is defective, and the building is dilapidated and ill adapted for hospital purposes. A new hospital is required.

The water supply is surface water collected into open tanks and largely impregnated with organic impurities. Much of the sickness at the station is attributed to its use. It is believed arrangements are in progress to secure a better water supply. Ablution accommodation is too limited. There is a plunge-bath but it is not supplied with water; no means of private ablution at the hospital.

Darjeeling.—In the Depôt Barracks a deficiency of cubic space and imperfect ventilation are brought to notice; and the chimneys are said to smoke. The guard-room is small and inconvenient, and the cells are not well ventilated.

Hazáribágh.—Barracks old, thatched buildings, roofs bad and generally leaky; during their repair in the rainy season the men were removed out and some crowding occurred. The condition of all these buildings during the rains was bad. Drainage (surface); in the rains the soil is very wet and water-logged. This is the station at which the 2nd Battalion 22nd Regiment suffered from enteric fever. It is now occupied by a detachment only.

ALLAHABAD CIRCLE.—*Allahabad.*—Old Wellington Barracks are out of repair, but only retained in occupation until new barracks are completed. The artillery and fort barracks are indifferently lighted by oil lamps, the Infantry Barracks are supplied with gas.

Cawnpore.—The Infantry Hospital is too small, and perflation is obstructed by the position of some long outbulidings. A new Infantry Hospital, and improved surface drainage in some parts of the station, are said to be desiderata. Here, as at Allahabad, venereal disease is common. The health of the 73rd Regiment has been seriously impaired by it.

Dinapore.—During the rainy season the barrack square is liable to be flooded by the river which rises and covers the square reaching to the level of the barrack floors. The floors are consequently often damp. There is also a want of free perflation through the parallel position of the barracks.

Benares.—The surface drainage in the artillery lines is not very effective, owing to the very level nature of the ground. The married quarters are long blocks of buildings, divided into separate rooms by partition walls 10 feet high, with spaces above open to roof. This entails a communism of noise, atmosphere, &c., which is not desirable. Venereal disease was, at this station, as at others in this Circle, far too prevalent.

Jubbulpore.—No sanitary defects of any importance. The troops have been remarkably healthy.

Chunar.—Nothing worth bringing to notice, except the prevalence of venereal.

Pachmarhi.—A deficiency of vegetables is the only want. The station is new however, and works are in progress.

LUCKNOW CIRCLE.—In consequence of the recent arrival of the present administrative Medical Officer, and his want of personal knowledge of the sanitary condition and requirements of the several stations in this Circle, his report is brief, and almost exclusively confined to Lucknow.

Lucknow.—The married quarters are in many instances too small for the numbers occupying them. The drainage is said to be defective, though some improvements have been made in various places. The season has been a very mild one, and the reports from all the stations are most favourable. Conjunctivitis among the women and children, and fever among the men are stated to be chief causes of admission. Lucknow and Sitapur hold a prominent place among the stations in which syphilitic affections prevail.

GWALIOR CIRCLE.—*Morar.*—A new garrison hospital in a central position; the removal of the Native Cavalry from the centre of the cantonment to a more suitable position selected for the regiment three years ago, but still unoccupied; and the removal of the commissariat cattle lines from their present site near the Artillery Barracks, are the more pressing sanitary improvements demanded.

Fortress Gwalior.—The barracks leak very much during the rains. The sanitary condition of the station is in other respects good.

Jhansi.—The only desideratum at the station is a contagious diseases ward, a want much felt at other stations also.

Saugor.—Barrack accommodation inferior, but sufficient as to space. The battery of artillery had but recently arrived from England. The men suffered much from fever.

Nowgong.—The drainage is not satisfactory; owing to want of sufficient fall, and to the nature of the soil, the channels are apt to get blocked and the water does not run off with sufficient rapidity, and much of it lodges in the ground.

A hospital in the new cantonment; cells; improved drainage; raised pathways between the different barracks; the filling up of holes and clearing away of dêbris of building material; the planting of trees and cultivation of waste ground—are sanitary measures which are stated to be much required.

MEERUT CIRCLE.—*Meerut.*—In the cavalry and infantry lines the surface drainage is good, but in the artillery lines some of the masonry drains require repair. The attention of Government is actively directed to the subject of the general drainage of the district, the importance of which is fully demonstrated by the prevalence of malarious fevers among the troops.

Agra.—The sanitary requirements of this station appear to be fairly met by works in progress.

Delhi.—Improvement of the surface drainage, and the continuation onwards into the hospital precincts of the hospital supply from the canal are urged as desirable. The latter improvement would secure the ornamental cultivation of open spaces in the vicinity now described as a dusty waste, Other open spaces within the fort might be similarly cultivated with advantage.

Muttra.—The married quarters are described as of inferior description and a want of bathing accommodation for the families is complained of.

Roorkee.—Exception is taken to the drainage, especially towards the north end of the cantonment, and to the position of the "filth-pits," which are recommended to be removed to a more distant situation.

Landour.—The only suggested improvement is thorough repair of the hospital kitchen, which is described as a wretched building, and the renovation of which was ordered by the Commander-in-Chief on his recent inspection of the station. The curative effect of this hill climate on the convalescents sent up from the plains is highly appreciated.

Chakráta.—The barracks are in a state of transition, the new barracks not having been finished at the close of the year. Improvement of hut floors, protection of water supply, more careful feeding of slaughter cattle, and the construction of racket and fives courts are suggested.

The climate is said to have exerted a most favourable and beneficial influence on all the weakly men of the 1st Battalion 8th Regiment. The advantages of a residence at this station to men suffering from cardiac and hepatic diseases are however very questionable.

SIRHIND CIRCLE.—*Umballa.*—The barrack accommodation is insufficient for the European portion of the garrison, men have consequently often to be accommodated in the enclosed verandahs. This was obviated during the winter of 1874-5 by placing some of them in tents pitched close to their barracks, an arrangement which was attended with marked benefit. There is no suitable hospital accommodation for contagious diseases or cases of insanity. The subsoil drainage is defective, and the water supply is barely sufficient to meet the more pressing requirements of the troops during the hot season. It is altogether insufficient for purposes of cultivation, swimming-baths, watering roads, &c. Swimming-baths are much needed, not only as a means of personal cleanliness but also as a place of exercise and training school in swimming especially during the hot weather. Several minor barrack improvements

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such as fireplaces in hospitals and married quarters, not yet so provided, better reading, recreation, and refreshment rooms, improved hospital kitchens a more abundant and better protected water supply, are suggested as desirable improvements.

Jullundur.—The upper stories of the new barracks and many of the married quarters are unprovided with fireplaces. There is no contagious diseases hospital, and the women and children of the European Infantry Regiment are treated in the same block with the men. Were a suitable women's hospital provided the wards now used by them might be appropriated for contagious diseases. The right wing of the men's hospital would be much improved by widening the verandahs, and proper quarters for hospital servants should be provided.

Kasauli.—The hospital is wanting in many essentials, such as suitable offices, surgery, medical store, purveyor's store, suitable wards for special cases, insane patients, and contagious diseases. The women's hospital is in a bad situation immediately under a high bank, and it is ill adapted to the requirements of such an institution. A new one on a better site is much required. Guard-room, prisons, offices, &c. in barracks, dining halls for 10 and 11 barracks, reading and recreation rooms, and wash-houses for the use of the married people are also desiderata.

Dagshai.—The hospital is too small for the requirements of this station, and it is unprovided with requisite offices, contagious and other special wards for the isolation of particular cases. The hut now used as a women's hospital is altogether unsuitable and quite insufficient. A new guard-room and proper prison cells are also much needed. The re-roofing of the old barracks now completed (July 1875), is a great improvement.

The influence of the climate of Dagshai in perfecting the restoration to health of the men of the 37th Regiment who arrived there in 1873, is beyond dispute. The sickness and mortality in this corps during 1874, has been less than in any year since its arrival in India in 1866. Residence at Dagshai is, as I have already more than once reported, a perfect cure for malarious fevers, provided the troops be permitted to remain there two consecutive seasons at least.

Subâthu.—The old barracks require reconstruction. The latrines and urinaries attached are in many instances in a ruinous state. A new women's hospital, a swimming-bath, a gymnasium, reading and recreation rooms, are all more or less urgently required.

Dr. Tulloch calls attention to the unfavourable influence of the climate of Subathoo on pulmonary diseases, but it is more than probable that much of this is really attributable to the faulty construction and insanitary state of the old barracks.

Jutogh.—Barracks on the standard plan. A new canteen and coffee room, and a reading and recreation room are desiderata. The three last-named are urgently required.

LAHORE CIRCLE.—*Meen Meer, and Fort Lahore.*—The sanitary state of this station is reported to be satisfactory. The Deputy Surgeon-General is not aware of any sanitary desiderata.

Ferozepore.—The health of the troops at Ferozepore was unsatisfactory during the year under notice, owing to the prevalence from May to September, of fevers of severe type.

Mooltan.—"The necessity for an efficient system of drainage is felt, as unusual rainfall or a sudden rise in the Chenab floods the station, as the main drainage outfall is usually the channel by which the flood is introduced. The subsidence of the river, and evaporation and absorption are at present the only means of getting rid of it.

Other stations in the Circle.—The drainage of the ditch at Fort Govindgarh, the removal of two objectionable bazaars from the vicinity of the barracks at Amritsar, the thorough drainage of a tank of stagnant water in front of the married quarters at Fort Kangra, and the completion of the drainage and rectifying of some defective chimneys in the barracks at Dalhousie, are the only other sanitary desiderata brought to notice.

PESHAWAR CIRCLE.—*Peshâwar.*—The sanitary requirements of this station were specially reported upon in January last by a Committee of which I was

President; a copy of that report was forwarded at the time for the Director-General's information. *Bengal.*

Cherat.—This is a hill camp much frequented with advantage by the troops from Pesháwar and Nowshera. There are a few huts but the troops are chiefly accommodated in tents. The more important desiderata are a better water supply; improved conservancy arrangements; additional hut accommodation, especially for the families; better roads.

This is stated to be a valuable sanitarium for troops stationed in the Pesháwar valley. The climate is good, and conducive to the restoration of health of men suffering from debility induced by fever or other sickness. It is also said to be more suitable for "chest and abdominal affections," than the hill stations of greater altitude, particularly during the long prevalence of rain and foggy weather.

Rawal Pindi.—The upper storied barracks require fireplaces in the dormitories, but the station is in other respects in a satisfactory sanitary condition.

Murree.—Improved conservancy of the compounds occupied by the civil and military residents of the station, and the removal of commissariat cattle sheds, timber-yards, bakery and butchery from the centre of the station, are stated to be necessary, and measures have been taken to remedy these defects.

Improved accommodation at all the "Gullies" in the vicinity of Murree, and better food and shelter for commissariat cattle during the rains, better ablution and kitchen accommodation at all except Khyra Gully, and the adoption of measures for the control of venereal disease are desiderata.

Gymnastics.—Gymnastic training has been regularly carried on at all stations provided with gymnasia with good results.

Rations.—The rations are generally stated to have been of good quality.

The meat issued at Chackráta, some of the smaller stations in the vicinity of Murree, and in a few other places, is stated to be often of an inferior quality, apparently from want of proper feeding and protection during the rains, but these exceptional instances of complaint are very few.

Clothing.—The flannel under clothing of the troops on the frontier, but especially in the Pesháwar Circle. The use of flannel under clothing by the troops on the hills and at all the stations in the Punjab should be compulsory. The blankets issued to the men particularly in the north-west and Punjab stations are too small and too light. This defect is remedied, however, by extra issues of blankets during the cold season. The winter hospital clothing at all these stations is also too light. This matter has been represented, and is now, I believe, under the consideration of the Government. On the whole the season has been a favourable one, and the chief part of the sickness and mortality of the year must be debited to climate, although remediable sanitary defects are still chargeable with a large amount of preventable disease.

II.—MADRAS.

STATISTICAL REPORT.

THE average strength of the European troops serving in the Madras Command in 1874 was 11,578; the admissions into hospital among them were 12,989, and the deaths, including those of invalids at sea, and at Netley, were 159. The proportions per 1,000 of the strength represented by these numbers are for admissions, 1121·9, and for deaths, 13·73; both are lower than the corresponding rates of the preceding year, that of deaths by 6·17 per 1,000 men. *Madras.*

The following Table shews the admissions and deaths from the different classes and orders of diseases:—

Madras.

Orders.	Diseases.	Strength, 11,578.				Ratio per 1,000 of Mean Strength.			
			Deaths.			1874.		1869–73.	
		Admitted.	In the Command.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group ..	2,158	17	..	17	186·4	1·47	254·2	4·56
2	Constitutional ,, ..	1,887	19	6	25	162·8	2·16	159·7	1·93
	II. *Local Diseases.* Diseases of the—								
1	Nervous System ..	222	12	1	13	19·2	1·12	21·1	2·30
2	Eye	165	..	..	..	14·3	..	22·1	..
3	Ear	129	..	..	..	11·1	..	9·7	..
4	Nose	3	..	..	..	·3	..	·5	..
5	Circulatory System ..	292	15	..	15	25·2	1·29	17·3	2·14
6	Absorbent ,, ..	329	..	..	..	28·4	..	24·9	..
8	Respiratory ,, ..	564	6	..	6	48·9	·52	43·8	·57
9	Digestive ,, ..	3,691	64	..	64	318·8	5·53	354·6	7·88
10	Urinary ,, ..	887	2	..	2	76·6	·17	79·4	·18
11	Generative ,, ..	164	..	..	..	14·2	..	15·6	..
12	Organs of Locomotion	64	..	..	..	5·5	..	5·4	·06
13	Cellular Tissue ..	177	..	..	..	15·3	..	18·0	..
14	Cutaneous System ..	796	..	..	..	68·8	..	91·2	..
	III. *Conditions, &c.*								
	Debility ..	326	..	..	..	28·1	..	40·7	·07
	IV. *Poisons* ..	43	1	..	1	3·7	·09	10·7	·56
	V. *Injuries.*								
1	Battle	..	..	..	..	..	..	108·6	..
2	Accidental	1,075	10	..	10	92·8	·86		1·21
3	Homicidal	1	1	..	1	·1	·09	·1	·06
4	Self-inflicted	1	4	..	4	·1	·34	·2	·50
6	Judicial	..	1	..	1	..	·09	..	·02
	VI. *Surgical Operations*	8	..	..	..	·7	..	·3	..
	Cause unknown ..	..	..	..	..	..	..	..	·02
	No appreciable disease	7	..	..	..	·6	.	1·1	..
	Total	12,989	152	7	159	1121·9	13·73	1279·2	22·11
	Average of 10 years, 1864–73	..	..	..	..	1371·6	22·55	..	..

General Diseases.—The prevalence of diseases in this class was materially less than in the preceding year, but the reduction is confined to those in the febrile group, in the constitutional there is an increase: the mortality from diseases of the first-named group is in a rate less than the half of that of 1873, whilst from diseases of the constitutional group it is greater than in the preceding year by ·51 per 1,000 men.

The proportions of sickness and of mortality, caused by the principal diseases of this class, are shewn in the following Table:—

Madras

General Diseases.	Admitted.	Died.	Ratio per 1,000 of Mean Strength.			
			1874.		1869–73.	
			Admitted.	Died.	Admitted.	Died.
Febrile—						
Eruptive Fevers	11	1	1·0	·09	1·4	·11
Continued „	1,362	13	117·6	1·12	118·2	1·63
Paroxysmal „	753	..	65·0	..	126·4	·57
Cholera	1	1	·1	·09	4·0	2·14
Influenza	4	..	·3	..	1·5	..
Erysipelas	26	1	2·3	·09	2·1	·07
Other Diseases of this group.	1	1	·1	·09	·6	·04
Total	2,158	17	186·4	1·48	254·2	4·56
Constitutional—						
Rheumatism	465	..	40·2	..	42·5	·02
Syphilis	1,245	2	107·5	·17	96·8	·17
Scrofula, Phthisis, &c. ..	126	13	10·9	1·12	13·4	1·61
Scurvy and Purpura ..	2	..	·2	..	·6	·02
Anæmia	40	..	3·4	..	5·4	..
Other Diseases of this group.	9	4	·8	·35	1·0	·17
Total	1,887	19	163·0	1·64	159·7	1·99

Eruptive Fevers, prevailed in exactly the same proportion as in the preceding year, being a little less than the average; only 5 admissions on account of small-pox, 5 on account of chicken-pox, and 1 for measles, occurred during the year.

Continued Fevers.—The prevalence of fevers of this nature was less than in the preceding year, but the mortality from them was the same; the admissions for *enteric fever,* were one-third less numerous.

There were only 7 admissions of men suffering from *dengue,* but the fact that 5 took place in the last quarter of the year, renders it uncertain whether the epidemic of that disease in the Command is extinct.

Paroxysmal Fevers.—The rate of admissions for fevers of this nature is just the half of that of the preceding year, and is little more than the half of that of the average prevalence; no deaths followed attacks of paroxysmal fevers in the present year.

Cholera.—There was only 1 admission from this disease; the case ended fatally.

Erysipelas.—The rate of admissions is 1·9 per 1,000 lower than that of the preceding year, and it only fractionally exceeds the average rate.

Rheumatism.—The returns shew no change of importance in the comparative prevalence of this disease.

Syphilis.—The rate of admissions exceeds that of the preceding year by 21·1 per 1,000 men, and that of the average by 10·7, and this considerable rise is in spite of the effect in a contrary direction which the new regulation respecting the withholding of the pay of soldiers in hospital for syphilis, might be presumed to cause. It is chiefly due to the greater number of admissions for diseases of this nature, that the proportion for the constitutioned order is higher than that of 1873; 2 deaths were due to syphilis.

Scrofula, Phthisis, &c.—The rate of prevalence and that of mortality is a little lower than in the preceding year.

Anæmia.—A lower proportion of admissions, is perhaps explained by the diminished prevalence of enteric fever in the Command.

LOCAL DISEASES.—*Diseases of the Nervous System.* The rate of prevalence of the diseases composing this group is the same as in 1873; the proportion of deaths is fractionally lower, but the distribution of admissions for particular adras.

diseases in the group does not correspond with that in the year mentioned; there were fewer admissions on account of neuralgia, as might be expected from the lessened prevalence of paroxysmal fevers; the admissions from heat apoplexy were not half as numerous. The most marked increase occurs in the admissions for mental diseases, which were twice as numerous as in the preceding year. The admissions on account of epilepsy were the same in number in both years.

Diseases of the Eye.—Owing to the diminished prevalence of conjunctivitis, the rate of admissions is one-third lower than that of 1873.

Diseases of the Circulatory System, give a slightly lower proportion of admissions, and a death rate not much exceeding the half of that of the preceding year. The deaths from aneurism of the aorta, in the present year were 16 fewer than in 1873.

Diseases of the Respiratory System, were a little more prevalent, and a little less fatal than in 1873; the excess of prevalence was chiefly in bronchitis, asthma, and pleurisy.

Diseaees of the Digestive System.—In this, the numerically most important order in the class, the rate of admissions is lower by 56·2 per 1,000 men, in the actual number of admissions there is a decrease of 625 on those of the preceding year; the less fatal character of the attacks of diseases in this group in the present year is shewn by the fact, that the proportion of deaths is lower than in 1873 by 2·90 per 1,000 men, or in actual numbers 33; the strength of the force in the two years not differing much. The decreased prevalence extends to a considerable number of diseases in the group. The admissions for tonsilitis are fewer, those for dyspepsia, and colic, are fewer, but the great decrease occurs in the diseases dysentery, and diarrhœa, for which, taken together, the admissions were 424 fewer than in the preceding year; in the absence of any more apparent explanation it may be suggested that the decreased number of admissions for diseases of the digestive system, is due to the same influences, meteorological or other, which determined the diminished prevalence of paroxysmal fevers—dysentery being one manifestation of malarial poison. The small number of admissions for splenitis in either year, perhaps deprives the statistics of it of any value, but it may be mentioned that the admissions for this effect of malaria are one-sixth fewer than in the preceding year. The deaths from dysentery, and diarrhœa, are in a rate less than the half of that of 1873, and the rate of those from hepatitis is lower.

Diseases of the Urinary System.—Owing chiefly to the increased prevalence of gonorrhœa, the rate of admissions for diseases of this group is 11·8 per 1,000 men higher than that of the preceding year.

CONDITIONS, &c.—The admissions on account of debility, are in a slightly lower proportion than in 1873, a result in harmony with the proportions for anæmia, in the two years.

POISONS.—A lower rate of admissions and a rate of deaths little exceeding a fourth of that of the preceding year, compare favourably with the corresponding rates of the average; there were no admissions from any other form of poisoning than that by alcohol.

INJURIES.—Whilst the rate of admissions for accidental injuries is nearly the same as in 1873, that of deaths is much lower; the self-inflicted deaths, were fewer by one, a reduction balanced by one judicial death.

The following Table, extracted from the report of the Principal Medical Officer shews the sickness and mortality at each of the principal stations in the Command:—

	Stations.	Average Strength.	Average Daily Sick.	Admitted.	Died in and out of Hospital.	Invalided	Ratio per 1,000 of Strength.				Average of previous period of 5 years.	
							Average Daily Sick.	Admitted.	Died.	Invalided.	Admitted.	Died.
PRESIDENCY.	Fort St. George	602	43	784	14	50	71·43	1302·32	23·25	83·05	1453·54	21·87
	St. Thomas' Mt.	354	20	448	3	14	56·50	1265·54	8·47	39·55	1283·27	24·32
	Palaveram ...	55	1	34	1	...	18·18	618·18	18·18	....	487·35	9·74
	Trichinopoly ...	251	21	365	4	9	83·66	1454·18	15·93	35·85	1379·64	15·54
	Bellary	858	53	1,026	9	23	61·77	1195·80	10·49	26·80	1133·69	9·41
	Total ...	2,120	138	2,657	31	96	65·09	1253·30	14·62	45·28	...	...
MYSORE.	Bangalore ...	1,680	106	1,773	20	90	63·09	1055·36	11·90	53·57	1292·83	12·49
	Cannanore ...	589	39	833	16	69	66·21	1414·26	27·17	117·15	1192·71	16·97
	Calicut	98	6	132	1	19	61·22	1346·94	10·20	193·88	1007.59	18·20
	Malliapooram ...	93	5	74	...	7	51·02	755·10	...	71·12	1060·54	19·89
	Total ...	2,465	156	2,812	37	185	63·29	1140·77	15·01	75·05	...	...
HYDERABAD.	Secunderabad ...	2,464	105	2,549	22	177*	42·61	1034·49	8·93	71·83	1339·24	30·77
	Kamptee ...	995	75	1,580	13	46	75·38	1587·94	13·07	46·23	1774·25	17·06
	Seetabuldee ...	46	1	72	...	...	21·74	1565·22	...	...	1549·57	12·25
	Total ...	3,505	181	4,201	35	223	51·64	1198·57	9·99	63·62	...	...
BURMAH.	Rangoon ...	872	36	699	9	17	41·28	801·60	10·32	19·49	1402·82	12·92
	Thayetmyo ...	678	24	726	5	16	35·39	1070·79	7·37	23·60	1334·50	26·84
	Tonghoo ...	427	19	417	4	25	44·49	976·58	9·37	58·55	906·92	17·16
	Port Blair ...	106	2	47	...	...	18·87	443·39	...	...	1020·22	13·05
	Total ...	2,083	81	1,889	18	58	38·88	906·86	8·64	27·84	...	...
DEPOTS.	Poonamallee ...	170	44	487	12	13	258·82	2864·71	70·59	76·47	2849·65	57·99
	Wellington ...	471	35	548	7	27	74·31	1163·48	14·86	57·32	1346·09	13·57
	Ramandroog ...	43	5	71	1	1	116·28	1651·16	23·25	23·25	1268·92	10·25
	Total ...	684	84	1,106	20	41	122·81	1616·96	29·24	59·94	...	...
CAMP OF EXERCISE		253	4	135	2	...	15·81	533·59	7·90	...	...	...
ON THE MARCH		233	10	145	6	...	42·92	622·32	25·75	...	582·40	21·78

* One man invalided at Darjeeling.

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Compared with the preceding year, the rate of admissions is higher at Port St. George, St. Thomas's Mount, Bellary, Seetabuldee, Tonghoo, and Port Blair, at the other stations the proportion is lower; the most important increase is that of Bellary, the rate which is 201·1 per 1,000 of the strength higher than in the preceding year, owing chiefly to the great prevalence of simple continued fever, and venereal diseases, amongst the troops at that station. Omitting mention of depôts—the highest proportion of admissions—1588· per 1,000 men, is that of Kamptee; the troops there suffered greatly from ague, and from syphilis. The station having the lowest proportion of admissions 443· per 1,000 men, is Port Blair, but the average strength there was small. A material reduction, 258· per 1,000 men, in the admission rate on that of the preceding year, occurs in the case of Secunderabad; the Principal Medical Officer notes, that in the year under review part of the troops there were placed in new and improved barracks. With regard to the proportions of deaths at the different stations, that of Secunderabad, is considerably lower, but as in the case of troops periodically changing stations, the illnesses causing deaths may not always have originated where the deaths are recorded, and as the relative amount of invaliding from a station may fundamentally affect the death rate, no reliable deductions can be made from a consideration of the death rates alone, more especially in the contrast of so short a period as one year.

The following Tables shew the proportions of sickness and mortality, caused by each class and order of diseases, in each of the Administrative Circles:—

	Stations	Presidency Circle.		Mysore Circle.		Hyderabad Circle.		Burmah Circle.		Depôts.		On the March.		Camp of Exercise.		Presidency Circle.		Mysore Circle.		Hyderabad Circle.		Burmah Circle.		Depôts.		On the March.		Camp of Exercise.	
	Strength	2,120		2,465		3,505		2,083		684		233		253		Annual Ratio per 1,000 of Strength.													
Orders.	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	1. *General Diseases.*																												
1	Febrile Group	528	2	353	6	861	3	267	3	121	1	14	...	16	...	249·06	·94	143·21	2·43	245·65	·86	128·18	1·44	176·90	1·46	60·09	...	63·24	...
2	Constitutional ,, ...	447	4	408	6	591	3	218	1	174	5	16	...	30	...	210·85	1·89	165·52	2·43	168·62	·86	104·66	·48	254·39	7·31	68·67	...	118·57	...
	II. *Local Diseases.*																												
	Diseases of the—																												
1	Nervous System	27	4	64	...	64	2	26	...	34	3	...	1	1	...	12·74	1·89	25·96	...	18·26	·57	12·48	...	49·71	4·39	...	4·29	3·95	...
2	Eye	37	...	37	...	48	...	7	...	27	...	8	...	...	...	17·45	...	15·01	...	13·69	...	3·36	...	39·47	...	34·33	...	...	...
3	Ear	29	...	24	...	50	...	16	...	8	...	1	...	1		13·68	...	9·74	...	14·21	...	7·68	...	11·70	...	4·29	...	3·95	...
4	Nose	...	...	1	...	3	...	1	...	...	...	...	...	...	...	...	...	·41	...	·86	...	·48	...	...	...	...	...	...	...
5	Circulatory System	39	4	99	4	48	5	64	2	35	1	2	...	...	...	18·40	1·89	40·16	1·62	13·69	1·43	30·72	5·96	51·17	1·46	8·58	...	...	...
6	Absorbent ,, ...	95	...	94	...	86	...	27	...	20	...	3	...	7	...	44·81	...	38·13	...	24·54	...	12·96	...	29·24	...	12·88	...	27·67	...
8	Respiratory ,, ...	81	1	110	...	217	1	79	...	63	4	4	...	4	...	38·21	·47	44·62	...	61·91	·28	37·93	...	92·11	5·85	17·17	...	15·81	...
9	Digestive ,, ...	557	12	820	15	1,114	19	687	10	397	4	57	3	31	...	262·73	5·66	332·66	6·09	317·83	5·42	329·81	4·80	580·41	5·85	244·63	12·88	122·53	...
10	Urinary ,, ...	248	...	150	1	320	...	100	...	45	...	10	1	10	...	116·98	...	60·85	·41	91·33	...	48·01	...	65·79	...	42·92	4·29	39·53	...
11	Generative ,, ...	44	...	33	...	48	...	24	...	14	...	2	...	3	...	20·75	...	13·39	...	13·69	...	11·52	...	20·47	...	8·58	...	11·86	...
12	Organs of Locomotion ...	8	...	19	...	16	1	10	...	10	...	...	...	...	...	3·77	...	7·71	...	4·56	·28	4·80	...	14·62	...	...	...	...	...
13	Cellular Tissue	41	...	48	...	40	...	31	...	9	...	4	...	...	...	19·34	...	19·47	...	11·41	...	14·88	...	13·16	...	17·17	...	...	...
14	Cutaneous System	197	...	182	...	194	...	153	...	53	...	5	...	12	...	92·92	...	73·83	...	55·35	...	73·45	...	77·48	...	21·46	...	47·43	...
	III. *Conditions, &c.*																												
	Debility	60	...	72	...	120	...	24	...	46	...	5	...	...	...	28·30	...	29·21	...	34·24	...	11·52	...	67·25	...	21·46	...	...	...
	IV. *Poisons*	6	1	8	...	13	...	15	...	1	...	...	...	...	...	2·83	·47	3·24	...	3·71	...	7·20	...	1·46	...	...	...	...	...
	V. *Injuries.*																												
2	Accidental	213	2	284	4	361	1	140	2	48	1	14	1	18	...	100·47	·94	115·21	1·62	103·00	·28	67·21	·96	70·18	1·46	60·09	4·29	71·15	...
3	Homicide	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	3·95	3·95
4	Self-inflicted	...	1	...	1	...	...	...	...	1	1	...	...	...	...	...	·47	...	·41	...	...	...	...	1·46	1·46	...	...	...	...
5	Jucical	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	3·95
	VI. *Surgical Operations*	...	...	3	...	3	...	...	...	...	...	...	...	1	...	...	...	1·22	...	·86	...	...	...	...	...	...	...	3·95	...
	No appreciable disease ...	...	...	3	...	4	...	...	...	...	...	...	...	...	...	...	...	1·22	...	1·14	...	...	...	...	...	...	...	...	...
	Total	2,657	31	2,812	37	4,201	35	1,889	18	1,106	20	145	6	135	2	1253·29	14·62	1140·77	15·01	1198·55	9·98	906·85	8·64	1616·97	29·24	622·32	25·75	533·59	7·90

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Stations	Presidency Circle.		Mysore Circle.		Hyderabad Circle.		Burmah Circle.		Depôts.		On the March.		Camp of Exercise.		Presidency Circle.		Mysore Circle.		Hyderabad Circle.		Burmah Circle.		Depôts.		On the March.		Camp of Exercise.	
Strength...	2,120		2,465		3,505		2,083		684		233		253		Annual Ratio per 1,000 of Mean Strength.													
General Diseases.	Admit.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile—																												
Dengue	...	...	2	...	...	...	5	...	...	...	...	...	...	...	...	...	·81	...	...	...	2·40	...	...	...	...	...	...	...
Eruptive Fevers ...	6	...	4	1	1	...	...	...	...	...	...	...	...	...	2·83	...	1·62	·41	·28	...	...	...	...	...	...	...	...	...
Continued ,, ...	469	...	260	...	320	...	193	...	67	...	9	...	4	...	221·22	...	105·48	...	91·29	...	92·65	...	97·95	...	38·63	...	15·81	...
Paroxysmal ,, ...	49	...	62	...	523	...	53	...	51	...	5	...	11	...	23·11	...	25·15	...	149·22	...	25·44	...	74·56	...	21·46	...	43·48	...
Enteric	2	1	20	5	7	3	4	2	1	1	...	...	...	...	·94	·47	8·11	2·03	2·00	·86	1·92	·96	1·46	1·46	...	...	...	...
Cholera	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	·48	·48	...	...	...	...	...	...
Influenza	...	...	1	...	3	...	...	...	...	...	...	...	...	...	...	...	·41	...	·86	...	...	...	...	...	...	...	...	...
Erysipelas	2	1	3	...	7	...	11	...	2	...	...	...	1	...	·94	·47	1·22	...	2·00	...	5·28	...	2·92	...	...	...	3·95	...
Other Diseases of this Group	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	·41	...	...	...	...	...	...	...	...	...	...	...
Total of Febrile Group ...	528	2	353	6	861	3	267	3	121	1	14	...	16	...	249·04	·94	143·21	2·44	245·65	·86	128·17	1·44	176·89	1·46	60·09	...	63·24	...
Constitutional—																												
Rheumatism	54	...	106	...	149	...	73	...	66	...	3	...	8	...	25·47	...	43·00	...	42·51	...	25·04	...	96·49	...	12·88	...	31·62	...
Syphilis	349	1	254	1	410	...	128	...	73	...	12	...	22	...	164·62	·47	103·04	·41	116·98	...	61·45	...	106·73	...	51·50	...	86·96	...
Scrofula, Phthisis, &c,	24	1	28	4	30	3	11	1	32	4	1	...	...	...	11·32	·47	11·36	1·62	8·56	·86	5·28	·48	46·78	5·85	4·29	...	...	...
Scurvy and Purpura ...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	·47	...	...	...	...	...	...	...	1·46	...	...	...	...	...
Anæmia...	17	...	18	...	1	...	3	...	1	...	...	...	...	...	8·02	...	7·30	...	·28	...	1·44	...	1·46	...	...	...	...	...
Other Diseases of this Group... ...	2	2	2	1	1	...	3	...	1	1	...	...	...	...	·94	·94	·81	·41	·28	...	1·44	...	1·46	1·46	...	...	...	...
Total of Constitutional Group	447	4	408	6	591	3	218	1	174	5	16	...	30	...	210·84	1·88	165·51	2·44	168·61	·86	94·65	·48	254·38	7·31	68·67	...	118·58	...

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GENERAL DISEASES, were in decreased prevalence in every Circle except the Presidency, in which there is an increase of 85·4 on the proportion of the preceding year, nearly the whole of it being in the febrile order of diseases; the greatest reduction is in Hyderabad, 170· per 1,000 men, in which diseases of the febrile order, are 204· per 1,000 men lower than in 1873; in diseases of the constitutional order of this class the proportion is higher. The rate of deaths is slightly higher in the Presidency Circle, in correspondence with the higher admission rate, but in the Hyderabad Circle, in spite of the great reduction in the admissions, the death rates in the two contrasted years differ only by a fraction.

Eruptive Fevers.—The admissions on account of fevers of this nature occurred in the Presidency, Mysore, and Hyderabad Circles.

Continued Fevers.—Except in the Presidency Circle, and in Depôts, the rate of admissions for continued fevers is everywhere lower than in the preceding year; the rate of deaths is lower in every Circle. The increased prevalence of *simple continued* fever, and *febricula*, determined the higher rate in the Presidency, but those diseases were not greatly in excess in any particular corps, or at any station in the Circle.

Enteric fever, caused fewer admissions than in the preceding year, but its prevalence as regards localities invaded was not less extensive than in that year; there were admissions on account of it in every one of the Circles, though in none of them did the disease occur as an epidemic. A partial qualification of this remark is necessary in the instance of the Mysore Circle, where at Bangalore, enteric fever prevailed nearly continuously from February, to September, half of the whole admissions from the disease in the Command occurred at this station, nearly two-thirds of the admissions being in the Royal Artillery, numbering only about one-fourth of the strength at the station. Though the admissions for enteric fever have been fewer, the deaths caused by it have been more numerous, and the proportion of deaths to attacks in the present year, is 352·9 per 1,000, being not far from twice the proportion in 1873.

In the Presidency Circle, where the disease did not appear in 1873, there were two admissions in the present year, one at Palaveram, and one at Trichinopoly. At the latter station an outbreak had occurred in 1872, but the disease shewed no epidemic tendency in the present year. With reference to the case in the 1st Battalion 21st Foot at Palaveram, , the Medical Officer states that at the time of its occurrence, enteric fever was rife amongst the men of the Native regiment there.

In the Mysore Circle, 3 admissions took place at Cannanore, one being in the 43rd Foot in which regiment the disease was epidemic in the preceding year, and two were those of men of the 1st Battery 5th Brigade Royal Artillery, a corps not then affected. Of the 17 admissions at Bangalore, 6 were in the C Battery C Brigade Royal Horse Artillery, the corps which had furnished all the admissions, excepting two, for the disease at the station in the preceding year; in the C Battery 9th Brigade of Royal Artillery, which in 1873 had remained unaffected, 7 men were attacked in the present year, though belonging to the same arm of the service the two batteries were located in different barracks; one case occurred in the D Battery 20th Brigade Royal Artillery, two in the 18th Hussars, and one in the 89th Foot, so that no corps in the station had exemption from enteric fever in the present year. In the Hyderabad Circle, there were 3 admissions of men of the 76th Foot at Secunderabad, 3 in the 44th Foot at Kamptee, and 1 in the same regiment at Seetabuldee. In the Burmah Circle, at Thayetmyo, 4 men of the 67th Foot were attacked by enteric fever; the disease had appeared in the preceding year in the regiment then stationed there. One admission is returned from the Wellington Depôt, where also cases of the disease were treated in the preceding year.

The stations at which there were admissions for enteric fever, and the months in which they occurred, are shewn in the following Table, extracted from the report of the Principal Medical Officer of the Command:—

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Stations.		Average Strength.	Number of Admissions from Enteric Fever.												Total.		Deaths.	
			January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Number Admitted.	Ratio per 1,000 of strength.	Number.	Ratio per 1,000 of strength.
Presidency.	Palaveram ...	55	...	...	...	...	...	...	...	...	...	...	1	...	1	18·18	1	18·18
	Trichinopoly...	251	...	...	1	...	...	...	...	...	...	...	...	...	1	3·98	...	...
Mysore.	Bangalore ...	1,680	...	3	3	4	2	1	2	...	2	...	...	...	17	10·12	3	1·78
	Cannanore ...	589	...	...	...	...	...	...	1	...	...	2	...	...	3	5·09	2	3·39
Hyderabad.	Secunderabad	2,464	...	...	...	...	...	...	...	1	1	...	...	1	3	1·22	2	·81
	Kamptee ...	995	...	...	...	...	...	...	1	2	...	...	...	...	3	3·01	1	1·00
	Seetabuldee ...	46	...	...	...	...	...	...	1	...	...	...	...	...	1	21·74	...	...
Burmah	...Thayetmyo ...	678	...	...	...	..	...	...	2	...	...	...	1	1	4	5·90	2	2·94
Depot	...Wellington ...	471	...	...	...	...	...	1	...	...	...	...	...	...	1	2·12	1	2·12
	Total ...	7,229	...	3	4	4	2	2	7	3	3	2	2	·	34	4·70	12	1·66

Taken with similar particulars given in previous years, this Table affords evidence of the nearly constant presence of enteric fever at the same stations in the Command, and of its occasional epidemic activity at them. The Medical Officers generally report that no cause for the occurrence of the disease could be discovered. In one report however, that from the C Battery C Brigade Royal Horse Artillery stationed at Bangalore, the following remarks occur :—

"In the barracks and lines, no sanitary defects have been noticed save "that the filth receptacles instead of being removed bodily are emptied "into open carts, and in consequence a very offensive smell hangs about on "still nights for many hours afterwards. In the neighbourhood of the "barracks, the Ulsoor Bazaar, and broken ground, and nullahs, which it is "impossible to prevent the natives from using as latrines, have on previous "occasions been referred to as probable causes of this disease. The latter "defect might afford an explanation if it could be shewn that the natives "suffer from enteric fever, for every shower of rain washes their excrement "down to the tanks, and men suffering from enteric fever would be more "likely to use these nullahs than men in health. The season of the year at "which cases usually occur seems to support this hypothesis of the origin of the "disease, 1873 being an unusually dry season nearly all the cases occurred "during the regular monsoon, but during 1874 there was rain off and on "during the 6 months in which the cases occurred. On 19th April there was a "very heavy shower which flushed all the nullahs, 9 days later the first case was "admitted into hospital." In reviewing this portion of the report of the Medical Officer of the battery, the Surgeon-Major of the brigade, whilst pointing out a fact not in harmony with the assumption in the last portion of the extract, confirms the accuracy of the statement made in regard to the "abominable practice of removing the night soil in open carts from the "filthy Ulsoor Bazaar, and the foul condition of the nullahs, and broken "ground in the neighbourhood of the barracks," states that it is not a settled question, whether enteric fever occurs amongst the natives of Bangalore or not, "for although hundreds fall victims to *fever* annually, the Municipal "Authorities cannot give the slighest clue to its true nature. I cannot how- "ever doubt that enteric fever does prevail largely among them. . . ." The prevalence of enteric fever in the native populations of Palaveram, and Thayetmyo, is noted in the reports.

In the following Tables, also taken from the Report of the Principal Medical Officer, the ages and periods of residence in the country, of those attacked by enteric fever are given :—

Ages.	Number admitted for Enteric Fever.	Number of Deaths from Enteric Fever.
19 to 20	1	..
20 to 21	4	1
21 to 22	7	3
22 to 23	8	3
23 to 24	2	1
24 to 25	4	1
25 to 26	1	..
26 to 27	1	..
27 to 28	1	..
29 to 30	2	1
31 to 32	1	..
32 to 33	2	2
Total	34	12

Service in India.	Number admitted for Enteric Fever.	Number of Deaths from Enteric Fever.
Under 1 year	4	4
1 to 2 years	15	4
2 to 3 ,, ...	7	1
3 to 4 ,, ...	2	..
4 to 5 ,, ...	5	2
8 to 9 ,, ...	1	1
Total	34	12

Paroxysmal Fevers.—In every Circle except that of Burmah, in which there is an inconsiderable increase, the prevalence of fevers of this nature has been less, in most instances much less, than in the preceding year ; there were no deaths from attacks of paroxysmal fevers. The greatest decrease is in Hyderabad, in which the rate of admissions is 181· per 1,000 lower than that of 1873 ; in the Hyderabad Circle, paroxysmal fevers prevailed in a rate nearly six times higher than that of any other, but the attacks were almost limited to the station of Kamptee, and nearly to one corps, the 44th Foot ; the rate of admissions due to paroxysmal fevers in which is 540· per 1,000 men, whilst for all other troops in the Circle, it is only 29·.

Cholera.—There was only one admission for this disease ; it occurred in a man of the G Battery 9th Brigade Royal Artillery, at Thayetmyo, in the Burmah Circle ; the attack proved fatal.

Erysipelas.—The greatest prevalence of this disease was in the Burmah Circle, where cases of it occurred in every quarter of the year, and not exclusively in any one corps.

Rheumatism.—The proportion of admissions is higher in the Mysore Circle, and in Depôts, than in the previous year, but the prevalence of the disease was not great in any Circle.

Syphilis.—The rate of admissions for diseases of this order, is triflingly lower in the Burmah Circle, and in Depôts, but in each of the remaining Circles, it is materially higher than in 1873 ; as in preceding years, the highest rate is in the Presidency Circle ; but it is in Hyderabad, that the greatest increase, amounting to 39· per 1,000 men, has taken place, two-thirds of the admissions in this Circle are returned by the 44th Regiment, being double those of the preceding year, when the regiment was at the same station, and the average strength was somewhat greater.

Scrofula, Phthisis, &c.—A decrease on the rate of 1873, is observed in the rate of admissions in every Circle, but a large increase in that of Depôts, from

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which it is to be inferred that no reduction has taken place in the amount of the diseases in this group, but only a transference of them.

Anæmia.—In every Circle, and also in Depôts, the proportion of admissions for anæmia is lower than in the preceding year.

Local Diseases.—*Diseases of the Nervous System*, were in greater prevalence than in 1873, in the Mysore, and Burmah Circles, but in less in the others; in Depôts, the reduction is very considerable.

Diseases of the Eye.—There is a greatly reduced proportion of admissions in every Circle, but an increase at Depôts; the least prevalence of diseases of this group was in Burmah, from which 7 admissions only are returned.

Circulatory System.—In every Circle, the prevalence of diseases of this order, was less than in 1873, except Burmah, in which the rate of admissions is double that of the preceding year, but it is accompanied by a death rate only one-ninth of that in the Circle in the year referred to; nearly all the admissions in the Burmah Circle, were for palpitation.

Diseases of the Respiratory System.—In Depôts, and in every Circle, except Burmah, the rate of admissions is higher than in 1873, but in none is the excess great, nor does an analysis shew that it is important as having occurred in one particular corps, or at one station.

Diseases of the Digestive System.—Excepting the Presidency, the rate of admissions is lower in every Circle and also in Depôts, than in the preceding year; the excess in the case of the Presidency is nominal, the decrease in the case of each of the remaining Circles is material, but it is greatest in Mysore, which in 1873 had the highest rate for diseases in this order, the decrease in that Circle amounts to 104·62 per 1,000 men. The prevalence of diseases of the digestive system in Mysore, still however exceeded that in any other Circle. The rate of deaths is higher in the Presidency, but is lower in every other Circle, and also in the Depôts; the highest rate of deaths corresponds with that of prevalence in Mysore; the greatest reduction in the rate of mortality is in the Hyderabad Circle, of which is lower than that of the preceding year by 0·47 per 1,000 men.

In the following Table, taken from the Report of the Principal Medical Officer, the relative prevalence in each Circle, of three important diseases in this order is shewn:—

	Ratio per 1,000 of the Strength													
Circles.	Presidency.		Mysore.		Hyderabad.		Burmah.		Depôts.		Troops on the March.		Camp of Exercise.	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died	Admitted.	Died.	Admitted.	Died,
Dysentery	57·55	·94	90·06	2·84	56·20	...	116·18	·96	175·44	1·46	107·30	8·58	35·57	...
Diarrhœa	24·06	...	43·00	...	57·06	...	53·77	...	62·87	...	25·75	...	31·62	...
Hepatitis, including abscess of liver	58·49	4·25	86·82	3·25	69·33	5·14	84·49	3·84	156·43	4·39	94·42	4·29	39·53	...
Total	140·10	5·19	219·88	6·09	182·59	5·14	254·44	4·80	394·74	5·85	227·47	12·87	106·72	...

Diseases of the Urinary System.—With the exception of the Mysore, in which there is a moderate decrease, the rate of admissions in every Circle exceeds that of the preceding year; the excess is greatest in Hyderabad, and in the Presidency.

Cutaneous System.—An important reduction in the prevalence of diseases of this order, obtained in every Circle, though not in Depôts; the reduction is due to the less frequent occurrence of boils, of ulcers, and of certain forms of skin disease.

Conditions, &c.—The admissions on account of debility, are in a higher rate than in 1873, in the Presidency, and Mysore, and in a lower one, in the remaining Circles; in Depôts the decrease is very large.

Poisons.—The rate of admissions for diseases in this order, is lower in every Circle excepting Burmah ; only one death—which was due to delirium tremens—is returned in the present year.

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INJURIES.—Accidental injuries are in a higher proportion than in 1873 in the Presidency, and Mysore Circles, and in a lower in the others, and in the last-named, the proportion of deaths following injuries is also higher.

In the following Table, taken from the Report of the Principal Medical Officer, the sickness and mortality in each corps serving in the Command are shewn :—

Regiments.	Average Strength.	Admitted.	Died.		Invalided.	Ratio per 1,000.			Stations during the Year.
			In India.	Of Invalids.		Admitted.	Died.	Invalided.	
CAVALRY.									Months.
16th Lancers ..	468	438	2	..	32	935 ·90	4·27	68 ·38	Secunderabad .. 12
18th Hussars ..	456	501	6	..	27	1098 ·68	13 ·16	59 ·21	Camp of Exercise 1 Bangalore 11
Total Cavalry ..	924	939	8	..	59	1016 ·23	8 ·66	63 ·85	
ARTILLERY.									
H.-Qs., C Brg. R.H.A.	8	1	..	1	..	125 ·00	5 ·68	..	Bangalore 12
B Batt. C Brig. „	170	248	..		12	1458 ·82		70 ·59	Secunderabad .. 12
C „ C „ „	174	228	1		7	1310 ·34		40 ·23	Camp of Exercise 1 Bangalore 11
H.-Qs. 5th Brig. R.A.	6	2	..	1	1	333 ·33	25 ·79	166 ·67	St. Thomas's Mount 12
1st Battery „ „	78	109	5		9	1397 ·44		115 ·38	Cannanore 12
2nd „ „ „	82	59	..		5	719 ·51		60 ·98	Rangoon 12
4th „ „ „	82	72	1		10	878 ·05		121 ·95	Tonghoo 12
5th „ „ „	88	46	1		1	522 ·73		11 ·36	Secunderabad .. 12
6th „ „ „	78	72	3		4	923 ·08		51 ·28	Rangoon 12
7th „ „ „	90	134	2		10	1488 ·89		111 ·11	Madras 12
7th Bat. 6th Brg. R.A.	82	91	..	1	4	1109 ·76	12 ·20	48 ·78	St. Thomas's Mount 12
A Bat. 9th „ „	166	200	4	..	6	1204 ·82	24 ·10	36 ·14	Secunderabad .. 12
C „ 9th „ „	165	207	6	..	13	1254 ·54	36 ·36	78 ·79	Camp of Exercise 1 Bangalore 11
G „ 9th „ „	169	129	2	..	3	763 ·31	11 ·83	17 ·75	On the march .. $\frac{2}{3}$ Thayetmyo .. $11\frac{1}{3}$
G „ 18th „ „	130	185	2	..	4	1423 ·08	15 ·38	30 ·77	Camp of Exercise and on the march $1\frac{2}{3}$ Trichinopoly .. $8\frac{1}{3}$ On the march .. 2
H.-Q. 20th „ „	6	2	1	..	..	333 ·33	166 ·67	..	Secunderabad .. 12
A Bat. 20th „ „	155	149	4	..	4	961 ·29	25 ·81	25 ·81	St. Thomas's Mount 12
B „ 20th „ „	157	136	3	..	8	866 ·24	19 ·11	50 ·96	Camp of Exercise and on the march $1\frac{2}{3}$ Bellary .. .. $10\frac{1}{3}$
C „ 20th „ „	162	222	1	..	10	1370 ·37	6 ·17	61 ·73	Camp and on the march .. .. $1\frac{2}{3}$ St. Thomas's Mt. $10\frac{1}{3}$
D „ 20th „ „	165	152	1	..	6	921 ·21	6 ·06	36 ·36	On the march .. $2\frac{1}{3}$ Bangalore .. .. $9\frac{2}{3}$
E „ 20th „ „	163	185	5	..	4	1134 ·97	30 ·67	24 ·54	On the march .. $1\frac{1}{2}$ Kamptee.. .. $10\frac{1}{2}$

Regiments.	Average Strength.	Admitted.	Died.		Invalided.	Ratio per 1,000.			Stations during the Year.
			In India.	Of Invalids.		Admitted.	Died.	Invalided.	
F Bat. 20th Brig. R.A.	152	123	1	..	9	809·21	6·58	59·21	Thayetmyo.. .. ⅔ On the march .. 1⅔ Secunderabad .. 9⅔
G „ 20th „ „	160	162	6	..	6	1012·50	37·50	37·50	Kamptee 12
Total Rl. Artillery..	2,688	2,914	49	3	136	1084·08	19·39	50·60	
INFANTRY.									
1st Bn. 21st Fusiliers	897	1,026	13	..	63	1143·81	14·49	70·23	Camp of Exercise and on the march 1 Madras .. ..11 Trichinopoly Dets. 12
43rd Foot	882	1,134	12	1	85	1285·71	14·74	96·37	Camp .. ..1 On the march ⅔ Cannanore 10⅓ Calicut & Mallieapooram, Det. } 12
44th „	826	1,398	5	1	30	1692·49	7·26	36·32	Kamptee .. ..12 Seetabuldee, Det. 12
45th „	869	737	11	..	27	848·10	12·66	31·07	Thayetmyo and on the march } ½ Rangoon .. ..11½ Port Blair, Det...11
48th „	918	1,070	11	..	22	1165·58	11·98	23·97	Camp of Exercise and on the march 1⅓ Bellary 10⅔
67th „ Hd.-Qs. & Lt. Wing	569	647	6	..	10	1137·08	10·54	10·67	Rangoon and on the march.. .. ⅓ Thayetmyo.. ..11⅔
67th „ Rt. Wing	368	438	6	..		1190·22	16·31		Rangoon and on the march.. .. ⅓ Tonghoo 11⅔
76th „	865	977	11	..	74	1129·48	12·72	85·55	Secunderabad ..12
89th „	926	871	5	..	43	940·60	5·40	46·44	Camp of Exercise 1 Bangalore 11
107th „	846	838	12	1	54	990·54	15·36	63·83	Secunderabad ..12
Total Infantry..	7,966	9,136	92	3	408	1146·87	11·92	51·22	

The rate of admissions of cavalry, is lower than that of the average of the whole force by 105·, and the death rate, by 5·07 per 1,000 men, but the invaliding was more extensive in this arm than in any other, it exceeded the average rate of the whole force by 11·77 per 1,000 men ; of the two regiments in the Command, the 16th Lancers, stationed at Secunderabad, shews the most favourable results as regards health in the present year, having in the preceding year shewn conspicuously the worst—the mean strength of this regiment exceeded the number of its admissions, and its death rate is less than a third of that of the average, but the high rate of invaliding—16·30 higher than the average—detracts from the value of the results in the other particulars. The health of the 18th Hussars stationed at Bangalore, was materially worse than in the preceding year in all the three particulars,—in the number of men treated for sickness, in the deaths following, and in the number of invalids, a much lower standard is seen ; but the returns of this regiment do not shew that any one disease was in marked excess.

In the Royal Artillery, the admission and invaliding rates for the brigades combined, are lower than those of the average of the three arms, in the Command, whilst the death rate is considerably in excess of the average ; the small strengths of the component batteries of the several brigades, render their statistics for short periods nearly valueless for comparison, but if an approximate judgment may be formed from a comparison of the health statistics of the different batteries in the year, those of the 1st Battery 5th Brigade stationed at Cannanore are the least satisfactory ; with nearly the highest admission rate it combines the highest death and invaliding rates of any battery ; the admissions from dysentery, and hepatitis, were comparatively very numerous in it, and 2 deaths from enteric fever greatly raised the death rate. The invaliding in the battery was chiefly due to hepatic disease.

For all infantry corps, the rate of admissions, a little exceeds that of the average of the whole force, but the death and invaliding rates, are a little lower. The highest rate of admissions of any corps, is that of the 44th Foot stationed at Kamptee, which exceeds the average all infantry by 535· per 1,000 men, but with this is conjoined a death rate only a little more than half that of the average, and an invaliding rate much below the average ; it has already been mentioned that the prevalence of ague, and of venereal diseases, caused the high proportion of admissions in this corps. The health of the 67th Foot stationed at Thayetmyo, and at Tonghoo, which was conspicuously good in 1873, continued good in the present year ; its rates of admissions and of deaths are below the average for the whole force, and its invaliding rate, 10·67 per 1,000 men, is the lowest of any corps in the Command.

SANITARY REPORT.

Surgeon-General C. Gordon, C.B., reports : The health of the British Troops in the Madras Presidency was very good during the year 1874, no epidemic of any description having occurred. The death rate has never been so low ; and the admission and sick rates were also below the average. On the other hand, the invaliding exceeded the mean of the last 16 years by 5·77 per 1,000.

The sanitary condition of barracks, hospital accommodation, water supply, drainage, conservancy, and other points connected with the health of the troops will be considered according to circles, and to the report on each circle will be appended a statement of improvements which have been completed during the year, and also one of those proposed, but not yet carried out.

Presidency Circle.—*Climate.*—In Madras the rain-fall was 64·90 inches, exceeding the average by 17·72 inches. The mean annual temperature was 81·9. At Bellary mean annual temperature 81·8, monthly mean ranging from 91·7 in April to 73·5 in December. Rainfall 26·6 inches, exceeding the average by 10 inches. At Ramandroog mean annual temperature 72·5, monthly mean varying from 78·9 in May to 68° in December. Rainfall 73·53 inches, exceeding the average by 37 inches. The Medical Officer in charge

Madras. 48th Regiment, speaks highly of Ramandroog as a sanitarium, and recommends the erection of another barrack, as at present the men occupying tents are obliged to leave early in the season when the rains commence.

Fort St. George.—Barracks.—Infantry and Artillery situated inside the Fort, no change during the year; double storied barracks have been proposed for the men of the Battery of Royal Artillery, and this is much required, as the present barracks occupied by the Royal Artillery are low and ill ventilated

St. Thomas's Mount.—Barracks the same as last year. The new barracks, which have been in a state bordering on completion for the last three years have not yet been handed over for occupation.

Palaveram.—Only occupied by the troops for rifle practice during the cold season.

Poonamallee.—The old barracks, which are structurally defective and have been condemned, were in use during the year. Plans and estimates for the new buildings, sanctioned by Government, have been under preparation, but the work has not yet been commenced. There has been no change in the barracks at Bellary, Ramandroog, and Trichinopoly.

Hospital Accommodation has been ample and good, and the ventilation satisfactory in all stations in the Presidency Circle, except at Poonamallee, where it is hoped that every effort will be made to complete the new hospital.

Water Supply.—In Fort St. George the supply is from "The Seven Wells," distant about 3 miles, quality good, and quantity ample. It is proposed to extend the municipal water supply from the Red Hills to the Fort. At St. Thomas's Mount, Poonamallee, and Trichinopoly, the supply is from wells, good and ample. At Bellary there is an artesian well from which the water is conducted to tanks in barracks, whence it is distributed by puckallies. At Ramandroog the supply is from springs.

Fort St. George.—Drainage.—Drains of masonry, some open, others covered and trapped; they communicate with a large covered drain opening into the sea. The nuisance of the main drain from Black Town which opens about 100 yards to the north of the Fort still continues, and must remain undiminished until an entirely new scheme of drainage is completed. At the Mount and Poonamallee drainage is as good as the level surface of the ground permits. At Trichinopoly there is only surface drainage. At Bellary surface drainage has been much improved during the year.

Conservancy.—In all the stations the dry-earth system has been carried out. It is stated to be effectively managed.

Cooling of Barracks.—In all stations except Ramandroog, the barracks and hospitals are provided with kuskus tatties and punkahs during the hot season, a re-arrangement of the punkahs at Fort St. George and Trichinopoly has been made with good effect.

Improvements effected during 1874. *Fort St. George.*—1. Punkahs re-arranged and made lighter by diminishing the size of frames and increasing the width of the fringers.

2. Two cook rooms for family quarters completed.

Bellary.—New latrines on dry earth system in barracks and hospital of Royal Artillery and 48th Regiment. Hospital compound drained. Two new barrack blocks in progress.

Trichinopoly.—Punkahs in Artillery barracks improved. Bath rooms provided for family quarters of Infantry detachment. New latrines on Rogers' self-acting dry earth system for barracks and married quarters for Infantry.

MYSORE CIRCLE.—*Camp of Exercise.*—During the month of January, 1874, a Camp of Exercise was formed 8 miles from Bangalore. A special report by Deputy Surgeon-General Massy on the health of the troops engaged has been submitted, so that it will be sufficient here to state that the camps were kept in excellent sanitary condition, and the troops returned to quarters in considerably improved health.

Climate.—In all stations the rainfall has been considerably higher than the average; at Bangalore nearly double, and at Calicut and Cannanore nearly 40 inches more than usually falls.

Barracks—Bangalore.—No alteration in the barracks of the men of any arm of the service. Cubic space ample, but there are three rows of beds in nearly all the bungalows, which is objectionable although unavoidable.

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Wellington.—Considered very good by the Deputy Surgeon-General. They are the only double-storied barracks in the Mysore Circle.

West Coast.—Improvements have been made in the Infantry barracks at Cannanore by making large ventilating apertures in the walls of the buildings which face the prevailing winds, and some buildings have been removed to allow of better perflation, but the quadrangular form of the barracks with closed corners will never allow of their being made good habitations for soldiers in such a climate as Cannanore. The Royal Artillery barracks are very good. *Calicut.*—Old and irregular barracks, but the situation is good. *Malliapoorum.*—One large barrack room in which 4 rows of beds are placed, a bad arrangement.

Hospitals.—No change in any of the hospitals of the Circle. The old Infantry hospital at Bangalore has been condemned, but it has answered its purpose very well during the year. The dry earth system has been introduced into this hospital during the year. The Cavalry, Artillery, and Female General Hospitals are two storied-buildings, the upper wards are preferred by the men, but there are no data to shew that the upper are healthier than the lower stories.

Water Supply reported to be ample and good from all stations. At Bangalore filtered Ulsoor lake water and that from the Dhobies wells used by the troops up to August, after which month the supply was exclusively from the Dhobies wells. Some tanneries, which are a serious source of impurity to the water of the Ulsoor tank, require to be removed to another site. Colonel Sankey's scheme for supplying water to Bangalore will probably not be completed for 5 years or perhaps longer. At Wellington the water is from springs conveyed by pipes to the vicinity of barracks whence it is distributed by puckallies. It would be very advantageous to carry a system of pipes throughout barracks, and so do away with the necessity for puckallies. This matter was brought to the notice of His Excellency the Commander-in-Chief, but no funds were available.

Drainage.—No improvements have been made in the Circle except a few in the Royal Horse Artillery Barracks Bangalore.

Conservancy.—Dry earth system carried out in Bangalore and Wellington, and in the barracks and hospital at Cannanore. The Artillery barracks at Cannanore, the barracks at Calicut and Malliapoorum, are still unprovided with the necessary arrangements. At Cannanore the system is not perfect as the old tarred tubs are still used. All Medical Officers recommend some such self-acting system as Roger's to ensure the earth being properly applied. In the Royal Horse Artillery Barracks at Bangalore, although the latrines are almost inodorus, the removal of the night soil is always a nuisance.

Bath and Lavatories.—Bathing accommodation on the whole satisfactory.

Bangalore.—Several minor improvements carried out at Cavalry and Infantry Barracks.

Wellington.—*Improvements effected during* 1874.—Drainage of ravines near barracks and planting with eucalyptus globulus; latrines in barracks—roof ventilation extended, and latrines of married quarters provided with air tight iron receptacles.

Improvements proposed, but not yet carried out.—Water for drinking and cooking to be distributed in barracks by a system of pipes and reservoirs; water to be laid on to bath-rooms of married quarters and hospital; rooms to be added to barrack lavatories for private ablution; plunge baths to be re-roofed and re-floored; washhouses and drying-rooms for the married quarters to enable women to wash their personal and bed linen, native labour on the hills being dear and bad (Deputy Surgeon-General Massy considers this a requisite service); increased school space for the children; all latrines to be self-acting dry-earth system; further ventilation and lighting for family quarters; more numerous and larger ash-pits in barracks; cattle to be grain fed (Dr. Massy remarks this would be advantageous, but it is said to have been tried at Wellington and not to have answered.)

Cannanore.—*Improvements effected during* 1874.—*Royal Artillery.*—All the wells in charge of the Military Department are now paved and drained. The Dhobie's (washermen's) nullah (water course) near the Artillery barracks, has been partially converted into a tank by the erection of a dam, and provided with a sluice and masonry outlet for waste water. A Government slaughter-house and cattle-shed is in course of construction.

43*rd Light Infantry.*—Large grated openings made at four points in the

Madras. old barrack quadrangle and provided with shutters, and ventilation of barrack rooms much improved thereby; enlargement of openings for roadways on the eastern and western faces of the barracks; washhouse removed from the sea face of barracks; arched passage leading from old to new barracks reconstructed and raised; appliances of third class gymnasium have been provided in a spare room in barracks.

A number of improvements have been proposed, but have not yet been carried out.

Calicut—Several minor improvements have been effected during 1874.

At *Malliapoorum* no improvements have been effected during 1874.

HYDERABAD CIRCLE.—*Climate.*—The climate was very pleasant, cool and healthy, the hot weather being tempered by heavy rains. The mean annual temperature was 80·7. The rainfall 29·84, 8 inches more than in 1873. The Nizam's state railway has been completed during the year, and thus a dusty march of 136 miles has been saved to invalids, and facilities increased for importation of fruit, fish, fresh vegetables, &c., from Bombay.

Barracks.—For the 16th Lancers at North Trimulgherry various additions to quarters have been completed, and others are in course of construction. Additions are also in progress in the Royal Artillery Barracks. No new buildings have been added to the barracks of the 76th or 107th Regiments, and no improvements are projected. *Kamptee.*—A few slight repairs and improvements have been made, both in the barracks of the 44th Regiment and Royal Artillery. At Seetabuldee the barrack accommodation sufficient.

Hospitals.—A block of married quarters has been utilized as a hospital for the 16th Lancers during the year, and will be so used until the new hospital is completed. The hospital in the old barracks has been entirely abandoned, and a female hospital has been re-established behind the family quarters. A barrack block is still used as a hospital for the Royal Artillery, with considerable inconvenience, but no detriment to the sick.

The hospital for the Infantry is occupied by the sick of both the 76th and 107th Regiments, and has had some improvements made—as fitting of venetians to the latrine corridors, and a staircase to the back, so that the patients' food can be more quickly conveyed to them. The latrines of the 107th Regimental hospital have been adapted to the dry earth system, which is also to be introduced in that of the 76th.

At Kamptee the hospital accommodation for 44th Regiment is reported as not being sufficiently ample, but the ventilation is good, and there has been no overcrowding. A new hospital for contagious diseases has been built on the banks of the river "Kanhan," a short distance from the Regimental hospital.

Seetabuldee.—The hospital is a small ward, capable of containing 6 patients, and is very well ventilated.

Water Supply.—From wells at all stations—generally good and abundant. The supply of water to the Royal Artillery at Secunderabad is apt to become scanty during the dry season. The well of the 16th Lancers is to be covered, and to have a pump adjusted.

Drainage.—The Deputy Surgeon-General remarks that the scheme for draining North Trimulgherry, which embraces the drainage of the lines of the Royal Artillery, 107th and 76th Regiments, is still under consideration. Some masonry drains have been made to the westward, and thus improved the worst drained portion of the 1st European Infantry lines. I have strongly recommended the drainage of a swampy piece of land to the westward of the centre barrack blocks in these lines which would certainly improve the sanitary condition of the barracks generally. At Kamptee the drainage is partly surface and partly masonry, and has been improved during the year by the addition of several open drains. There is some marshy ground to the west of Royal Artillery barracks which requires a complete system of drainage. At Seetabuldee the drains have been thoroughly repaired.

Conservancy.—The latrines of the 16th Lancers and 107th Regiment have been worked on the dry-earth system, both in barracks and hospitals, with satisfactory results. The latrines of the Royal Artillery and 76th Regiment are still on the old system.

At Kamptee the dry earth system is in use in the barracks of the 44th, but not in those of the Royal Artillery.

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At Seetabuldee also on the dry earth system.

Improvements effected during 1874. *Secunderabad.—16th Lancers.*—North Trimulgherry—Officers' quarters completed, and a number of other works either completed or in progress.

Royal Artillery.—A range of eight well situated and well ventilated family quarters completed, and other works in progress. Several other works in connection with the 76th and 107th Regiments have been executed or commenced during the year.

Kamptee.—Improvements effected during 1874—*Royal Artillery.*—Barrack No. 1, roof raised, lighting and ventilation increased; barrack, blocks No. 1 and 2, open verandahs built at ends to screen serjeants' rooms from sun; prison rebuilt and roof raised; school-room built, large and airy, and well ventilated.

44*th Regiment.*—Reading and recreation rooms, sunshades placed in front; infant-school partition wall removed, and accommodation increased; hospital for contagious diseases built; drainage of barracks improved.

Seetabuldee.—Improvements effected during 1874.—Drains thoroughly repaired; dry earth conservancy introduced.

British Burmah Circle.—Climate.—The following table gives a comparison of the climate of the stations of the Burmah Circle:—

Stations.	Mean annual temperature.	Highest monthly mean.	Lowest monthly mean.	Rainfall.	
				Days.	Inches
Rangoon	79°·80	April .. 86°·	February .. 75°·	140	89·52
Thayetmyo ..	80·0	„ .. 90·	January .. 69·	94	39·23
Tonghoo	81·4	„ .. 89·7	„ .. 69·2	126	62·83
Port Blair	..	Highest temperature—May, 94°	Lowest temperature—Jan., 70°	..	105·35

Barracks.—Rangoon.—Royal Artillery.—The old barracks consist of two wooden blocks with a centre room, and two small rooms at either end for non-commissioned officers, and are well ventilated. The new barrack is a fine building of teak with a shingle roof, and consists of a large centre room divided into three compartments, the two end rooms being for sleeping, the centre for a library. The underneath part is used as a dining and day room; ventilation is good, and is carried on by doors, windows, and ridge ventilators. Four rows of beds are placed in each dormitory, an arrangement protested against by the Principal Medical Officer of the Circle. In my special report on Burmah I have fully discussed this question.

45*th Regiment.*—Barracks worn out and condemned, and being gradually replaced by new buildings on the same plan as that of the Royal Artillery just described.

Thayetmyo.—The Royal Artillery occupy some very fine buildings raised on piles 8 or 10 feet high, well and healthily situated. Two rows of beds are arranged in the centre room, and one in an inner verandah, the men taking their meals in the space beneath barracks, where the lavatories are also situated. The Infantry barracks have also the same general plan.

Tonghoo.—Barracks of Infantry and Artillery are uniform in plan, built on piles 7 or 8 feet high, and only two rows of beds are placed in the inner rooms, leaving the verandahs clear.

Port Blair.—Barracks of stone, 90 feet above sea level, and situated at the extreme north-east end of a ridge of a sand-stone. They are well suited to their purpose.

Hospital Accommodation, Rangoon.—Sufficient, buildings on same plan as barracks.

Thayetmyo.—The Royal Artillery hospital is a very fine double-storied

Madras.

building, constructed of masonry; it was proposed by his Excellency the Commander-in-Chief to convert this into a station hospital, as the accommodation is far beyond the requirements of a battery.

One of the barrack blocks is used for an Infantry hospital.

At Tonghoo the hospitals are ordinary barrack rooms.

Port Blair.—Hospital a wooden building built on piles, the position is favourable, and sheltered from south-west monsoon.

Water Supply.—From wells covered and otherwise protected.

At Rangoon and Thayetmyo these wells fail towards the end of the hot season. It is proposed to supply Thayetmyo with water from the Irrawaddy, and the Rangoon Infantry Barracks from a neighbouring tank.

Drainage and Conservancy.—The Principal Medical Officer of the Circle strongly urges the necessity of stringent sanitary measures in private compounds in Cantonment in Rangoon, and although much has been done in this direction, much still remains to be carried out.

The dry earth system is only partially carried out in this Circle, the heavy rainfall rendering it difficult to follow out the details thoroughly, refuse and night soil are carried to a distance and either buried or burnt. (At Rangoon it appears that Chinamen remove the urine for horticultural purposes.) At Thayetmyo and Tonghoo the system is also in vogue. In Port Blair soil is thrown into the sea.

Improvements effected during 1874. *Rangoon.—Royal Artillery.*—Large barrack bungalow for men completed; well in Royal Artillery lines cleaned and repaired.

British Infantry Lines.—One large barrack bungalow for men completed; levelling of ground around barrack rooms, improving drainage and demolishing various old buildings; two large barrack bungalows for men are in progress.

III.—BOMBAY.

ombay.

THE average strength of the European troops serving in the Bombay Command in 1874 was 10,578; the admissions into hospital among them were 13,406, and the deaths, including 5 at Netley or on the passage home, were 118; being in the proportions of 1267·3 and of 11·16 per 1,000 of the mean strength respectively; both rates are lower than the corresponding ones of the preceding year, that of deaths by 1·86 per 1,000 of the strength.

The following Table shews the admissions and deaths from each class and order of diseases :—

Bombay.

Order.	Diseases.	Strength, 10,578.				Ratio per 1,000 of Mean Strength.			
		Admissions.	Deaths.			1874.		1869–73.	
			In India.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group ..	4,645	24	..	24	439·1	2·27	697·6	4·99
2	Constitutional ,, ..	1,514	6	2	8	143·1	·76	148·9	2·37
	II. *Local Diseases.*								
	Diseases of the—								
1	Nervous System ..	177	18	..	18	16·8	1·70	16·8	2·39
2	Eye	253	..	..	..	23·9	...	26·7	..
3	Ear	82	..	..	..	7·7	..	5·6	·02
4	Nose	9	..	..	..	·9	..	·5	..
5	Circulatory System ..	156	11	2	13	14·7	1·23	12·8	1·18
6	Absorbent ,, ..	289	..	..	..	27·3	..	22·1	..
8	Respiratory ,, ..	371	6	..	6	35·1	·57	43·7	·69
9	Digestive ,, ..	2,535	31	1	32	239·6	3·03	213·0	3·94
10	Urinary ,, ..	841	..	..	..	79·5	...	85·0	·28
11	Generative ,, ..	95	..	..	..	9·0	..	10·5	·02
12	Organs of Locomotion..	41	1	..	1	3·9	·09	4·6	·04
13	Cellular Tissue.. ..	162	..	..	..	15·3	..	18·3	..
14	Cutaneous System ..	795	..	..	..	75·2	..	70·1	·02
	III. *Conditions, &c.*								
	Debility..	290	1	..	1	27·4	·09	16·7	·02
	IV. *Poisons* ..	72	..	..	..	6·8	..	8·7	·34
	V. *Injuries.*								
2	Accidental	1,059	8	..	8	100·1	·76	83·9	·67
3	Homicidal	..	2	..	2	..	·19	·1	·07
4	Self-inflicted	2	3	..	3	·2	·28	·2	·54
6	Judicial..	..	2	..	2	..	·19	..	·06
	VI. *Surgical Operations.*	1	..	..	..	·1	..	·2	·02
	No Appreciable Disease	17	..	..	..	1·6	..	·4	..
	Total ..	13,406	113	5	118	1267·3	11·16	1486·4	17·66
	Average of 10 years, 1864–73	..	..	..	..	1404·0	19·63	..	..

General Diseases.—In this class there is a reduction of 52·8 per 1,000 on the rates of the preceding year, due entirely to the diminished prevalence of diseases of the febrile order, in the constitutional order the rate of prevalence is a little higher than in 1873. The mortality in the class of General Diseases is lower than in the preceding year by 1·09 per 1,000 of the strength, but, unlike what is seen in the admissions, the reduced mortality is in the constitutional order, the rate of which is ·21 lower than in 1873, whilst the proportions of that of febrile diseases is higher, though the admissions in the order are in a lower rate.

The following Table shews the sickness and mortality, caused by the principal diseases of this class :—

ombay.

General Diseases.	Admitted.	Died.	Ratio per 1,000 of Strength.			
			1874.		1869–73.	
			Admitted.	Died.	Admitted.	Died.
Febrile—						
Eruptive Fevers	4	..	·4	..	1·7	·06
Continued „	802	14	75·8	1·32	171·9	1·85
Paroxysmal „	3,798	8	359·0	·76	519·0	1·29
Cholera	3	2	·3	·19	2·5	1·70
Influenza	3	..	·3	..	1.1	..
Erysipelas	32	..	3·0	..	1·0	·02
Other Diseases of this group ..	3	..	·3	..	·4	·07
Total	4,645	24	439·1	2·27	697·6	4·99
Constitutional—						
Rheumatism.	449	1	42·4	·09	41·2	·04
Syphilis	950	..	89·8	..	86·6	·15
Scrofula, Phthisis, &c.	79	6	7·5	·57	10·5	1·89
Scurvy and Purpura	3	..	·3	..	·7	·05
Anæmia	30	..	2·8	..	8·6	·07
Other Diseases of this group ..	3	1	·3	·09	1·3	·17
Total	1,514	8	143·1	·75	148·9	2·37

Eruptive Fevers.—Only 4 admissions for fevers of this nature, all due to small-pox, are returned.

Continued Fevers.—The admissions for fevers of this group, are in a slightly higher rate than in 1873, owing chiefly to the greater prevalence of *febricula*, the rate of which is more than a third higher than in the year quoted. *Enteric fever*, caused nearly twice as many admissions as in the preceding year; on the other hand, there is a reduction of one-third in the number of admissions from *simple continued fever*, and no admissions from *dengue*, are returned in the present year. With the exception of one, returned as due to *simple continued fever*, all the deaths in this group were caused by *enteric fever*; the proportion borne by the deaths to the attacks of this disease, is 393·93 per 1,000; though still very high, it is lower than that for the same disease in the preceding year.

Paroxysmal Fevers, shew a reduction of 63· per 1,000 on the rate of admissions of 1873; the proportion of deaths is nearly the same in both years, the fractional difference however being against the present year.

Cholera.—Only three admissions for this disease were returned during the year, all being in one regiment; two of the attacks were fatal.

Rheumatism.—The prevalence of this disease is in a slightly higher rate than in the preceding year; death followed in one case from an intercurrent affection in the course of an attack of rheumatism.

Syphilis.—The increased prevalence noted in 1873, has been exceeded in the present year, the rate of admissions being 7·6 per 1,000 higher; the prevalence in the present year also a little exceeds the average.

Scrofula, Phthisis, &c.—The feature in connection with the statistics of these diseases is the reduction both in the rate of admissions and of deaths on the corresponding ones of the preceding year, that in the last particular being not much less than two-thirds of the whole, both rates are also much lower than those of the average.

Bombay.

Anæmia.—The admissions on account of this disease were fewer than in 1873, and no deaths were caused by it.

Local Diseases.—With the exceptions of *diseases of the eye*, and those of the *respiratory, generative, and urinary systems*, in which a decrease, in no instance considerable, occurs, the rate of every other important group in this class exceeds that of 1873, which was also one of increased prevalence in those groups, on that of the year preceding it. The greatest increase is in diseases of the *digestive system*, which exceed the corresponding rate of 1873 by 24·3 per 1,000 men. Except in that of diseases of the *nervous system*, the proportion borne by deaths to the strength, is not increased in any of the groups, which shew greater prevalence; on the contrary, with that exception, there is a uniformity in the connection between an increased rate of prevalence and a decreased rate of deaths in the numerically important diseases of the class; in diseases of the *digestive system*, the porportion of deaths is 1· per 1,000 men lower than that of 1873.

Conditions, &c.—The proportion of admissions on account of debility, a little exceeds that of the preceding year.

Poisons.—A relatively considerable increase in the prevalence of diseases of this nature, is accompanied by more favourable results in the attacks than in 1873; no man died from delirium tremens, or from any disease in this class.

Injuries were both more numerous, and resulted in death more frequently, than in the preceding year, and also than in the average of a period of five years; 3 of the deaths were due to drowning, 1 to suffocation by a foreign body in the air passage, 1 to a gunshot wound, and 3 to injuries of the skull or spine. The self-inflicted deaths (3) were the same in number as in the preceding year. Two deaths were in pursuance of judicial sentences.

The following Table shews the admissions and deaths at the principal stations in the Command:—

Military Divisions.	Stations.	Average Annual Strength.	Admitted into Hospital.	Died in India.	Ratio per 1,000.		Ratio per 1,000. Average of 11 Years.	
					Admitted.	Died.	Admitted.	Died.
Presidency..	Colaba	507	866	12	1708·1	23·67	1447·6	18·63
Poona ..	Poona	1,576	2,395	14	1519·7	8·88	1288·8	12·60
	Sattara.	168	108	1	642·9	5·95	1170·9	12·92
	Ahmednuggur ..	533	538	1	1009·4	1·88	1315·4	11·80
	Asseerghur. ..	101	122	1	1207·9	9·90	1394·9	15·73
	Belgaum	778	1,079	3	1103·3	3·07	998·1	9·31
	Kirkee.	616	688	4	1116·9	6·49	1396·0	10·65
Mhow ..	Mhow.	1,367	2,116	9	1547·9	6·58	1671·8	13·89
	Indore.	97	145	..	1494·8	..	1461·0	16·73
	Neemuch	390	784	9	2010·3	23·08	2273·7	37·96
	Nusseerabad ..	608	505	5	830·6	8·22	2009·2	30·85
Northern.	Deesa..	676	733	12	1084·4	17·75	1411·3	16·43
	Ahmedabad. ..	267	389	10	1459·9	37·45	2137·9	20·48
	Mount Aboo ..	35	44	..	1257·1	..	1907·1	21·43
Scinde ..	Kurrachee.. ..	722	654	7	905·8	9·70	1484·3	13·83
	Hyderabad ..	415	522	5	1257·8	12·05	1281·3	14·57
	Aden	703	705	5	1002·8	7·11	1120·4	20·16
	Depôts, Sanitaria, & Invalids	338	739	11	2186·4	32·54	..	..
	On the March, &c.	373	337	1	905·1	2·68	1017·4	20·80

Bombay.

The proportions of admissions at Bombay, Poona, Belgaum, Ahmednuggur, Mhow, and at Indore, exceed those in the preceding year, but those of the remaining stations are lower; the excess on the rate of 1873 is highest in the case of Poona, 366 per 1,000, but it is also very considerable in that of Mhow (284·), and of Bombay (145·). The greater unhealthiness of Poona, as deduced from the number of men taken into hospital, was due to the prevalence of fevers, and chiefly of paroxysmal fevers. The station having the highest rate of admissions in the present year (omitting mention of those with an average strength less than one hundred), is Neemuch, 2010· per 1,000, but this is below the corresponding rate of 1873, and is considerably below the average for that station; this high proportion of sickness at Neemuch was due, as in the preceding instance, to the prevalence of paroxysmal fevers. The lowest proportion of admissions at any considerable station is that of Nusseerabad, which is not much more than half that of the preceding year, and it is 1179· per 1,000 men lower than the highest in the present year; at Sattara, and at Kurrachee, the mean strengths exceeded the number of admissions, and at Aden, and at Ahmednuggur, the admission rate was very low. At the following stations, all of which have lower rates of admissions than in the preceding year, the rates of deaths in correspondence with the lesser prevalence of disease, are also lower—Sattara, Asseerghur, Kirkee, Nusseerabad, Deesa, Aboo, Aden, and in Troops on the March. At Ahmedabad, which has an admission rate very much lower than that of 1873, the death rate is more than eightfold greater. At Kurrachee, the death rate is only slightly higher than in the preceding year, at Hyderabad it is materially higher; at the remaining stations the higher admission rates are in conjunction with higher death rates, except in the cases of Ahmednuggur, and of Mhow, which with greater prevalence shew a less fatal character of disease.

The following Table shews the admissions and deaths from the different classes, and orders of diseases in each of the Divisions:—

	Military Divisions	Presidency.		Poona.		Mhow		Northern.		Scinde.		Aden.		Troops on March	
	Average Annual Strength	486		3,974		2,455		978		1,138		703		340	
Order.	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*														
1	Febrile Group	322	2	1582	4	1386	11	376	3	407	3	236	...	106	...
2	Constitutional "	109	...	660	4	368	...	132	...	74	1	52	1	36	...
	II. *Local Diseases.* Diseases of the—														
1	Nervous System	14	1	49	2	39	...	31	6	11	3	74	2	3	...
2	Eye	7	...	79	...	91	...	40	...	18	...	8	...	1	...
3	Ear	5	...	36	...	16	...	8	...	10	...	3	...	...	...
4	Nose	...	...	6	...	1	...	1	...	1	...	...	...	...	...
5	Circulatory System	6	3	27	4	60	1	28	2	16	1	8	...	...	...
6	Absorbent "	40	...	138	...	27	...	22	...	30	...	4	...	11	...
8	Respiratory "	31	...	112	1	102	...	42	4	18	...	22	...	17	...
9	Digestive "	135	6	980	6	662	6	228	6	183	...	122	...	95	...
10	Urinary "	97	...	371	...	192	...	66	...	49	...	45	...	14	...
11	Generative "	3	...	34	...	19	...	6	...	9	...	7	...	3	...
12	Organs of Locomotion	2	...	17	1	10	...	7	...	4	...	1	...	...	...
13	Cellular Tissue	7	...	57	...	35	...	15	...	35	...	10	...	4	...
14	Cutaneous system	26	...	234	...	186	...	74	...	152	...	72	...	4	...
	III. *Conditions, &c.*														
	Debility	21	...	104	...	44	...	19	...	44	...	5	...	1	...
	IV. *Poisons*	6	...	27	...	17	...	10	...	4	...	10	...	1	...
	V. *Injuries.*														
2	Accidental	35	...	404	1	293	2	61	1	108	4	82	...	33	1
3	Homicidal	...	...	...	...	...	1	...	...	...	...	1	1	...	...
4	Self-inflicted	...	...	...	1	...	1	...	...	...	...	...	...	...	...
6	Judicial	...	...	...	...	...	1	...	...	...	...	...	1	...	...
	VI. *Surgical Operations* ...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
	No appreciable disease	...	...	11	...	2	...	...	...	2	...	3	...	...	...
	Total	866	12	4929	24	3550	23	1166	22	1175	12	705	5	329	1

Bombay.

Order.	Military Divisions	Presidency.		Poona.		Mhow.		Northern.		Scinde.		Aden.		Troops on March.	
		Annual Ratio per 1,000 of Mean Strength.													
	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*														
1	Febrile Group	662·6	4·12	398·1	1·01	564·6	4. 48	384·5	3·07	357·6	2·64	335·7	...	311·8	...
2	Constitutional Group ...	224·3	...	166·1	1·01	149·9	...	135·0	...	65·0	·88	74·0	1·42	105·9	...
	II. *Local Diseases.*														
	Diseases of the—														
1	Nervous System	28·8	2·06	12·3	·50	15·9	...	31·7	6·14	9·7	2·64	19·0	2·85	8·8	...
2	Eye	14·4	...	19·9	...	37·1	...	40·9	...	15·8	...	11·4	...	2·9	...
3	Ear	10·3	...	9·1	...	6·5	...	8·2	...	8·8	...	4·3	...	...	...
4	Nose	...	...	1·5	...	·4	...	1·0	...	·9	...	...	...	...	...
5	Circulatory System ...	12·3	6·17	6·8	1·01	24·4	·41	28·6	2·04	14·1	·88	11·1	...	...	...
6	Absorbent ,, ...	82·3	...	34·7	...	11·0	...	22·5	...	26·4	...	5·7	...	32·4	...
8	Respiratory ,, ...	63·8	...	28·2	·25	41·5	...	42·9	4·09	15·8	...	31·3	...	50·0	...
9	Digestive ,, ...	277·8	12·34	246·6	1·51	269·7	2·44	233·1	6·14	160·8	...	173·6	...	279·4	...
10	Urinary ,, ...	199·6	...	93·3	...	78·2	...	67·5	...	43·1	...	64·0	...	41·2	...
11	Generative ,, ...	6·2	...	8·5	...	7·7	...	6·1	...	7·9	...	10·0	...	8·8	...
12	Organs of Locomotion ...	4·1	...	4·3	·25	4·1	...	7·2	...	3·5	...	1·4	...	...	...
13	Cellular Tissue	14·4	...	14·3	...	14·3	...	15·3	...	30·7	...	14·2	...	11·8	...
14	Cutaneous System... ...	53·5	...	58·9	...	75·8	...	75·7	...	133·6	...	102·4	...	11·8	...
	III. *Conditions, &c.*														
	Debility	43·2	...	26·2	...	17·9	...	19·4	...	38·7	...	7·1	...	2·9	...
	IV. *Poisons.*	12·3	...	6·8	...	6·9	...	10·2	...	3·5	...	14·2	...	2·9	...
	V. *Injuries.*														
2	Accidental	72·0	...	101·7	·25	119·3	·81	62·4	1·02	94·9	3·51	116·6	...	97·1	2·94
3	Homicidal	...	...	...	...	...	·41	...	...	...	...	1·4	1·42	...	...
4	Self-inflicted	...	...	...	·25	...	·41	...	...	...	...	...	...	...	...
6	Judicial	...	...	...	...	...	·41	...	...	...	...	...	1·42	...	...
	VI. *Surgical Operations.*	...	...	·2	...	...	...	...	...	...	...	...	...	...	...
	No appreciable disease ...	...	...	2·8	...	·8	...	...	...	1·7	...	4·2	...	...	...
	Total	1781·9	24·69	1240·3	6·04	1446·0	9·37	1192·2	22·50	1032·5	10·55	1002·8	7·11	967·7	2·94

General Diseases.—The rate of admissions for diseases of this class is lower in every Division, excepting in the Presidency, and Poona, in both of which, but particularly in the latter, there is a considerable increase on that of the preceding year, due chiefly to the increased prevalence of diseases of the febrile order; in the Divisions which shew decreased prevalence, the reduction is greatest in the Northern, the rate of which is 711· per 1,000 lower than that of 1873; the febrile order is that in which the reduction occurs, and in it chiefly in paroxysmal fevers, all the stations in this Division, participate in the lesser prevalence. All the Divisions shew reduced proportions of deaths, except Mhow, Aden, and Scinde, in each of which the rate fractionally exceeds that of 1873.

The following Table shews the admissions and deaths in each of the Divisions from the principal diseases of this class :—

ombay.

Military Divisions … …	Presidency.		Poona.		Mhow.		Northern.		Scinde.		Aden.		Troops on the March.	
GENERAL DISEASES.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile—														
Eruptive Fevers … …	…	…	3	…	1	…	1	…	1	…	…	…	…	…
Continued Fevers … …	11	…	445	1	220	9	29	2	25	2	10	…	49	…
Paroxysmal Fevers … …	310	2	1107	1	1162	2	342	1	381	1	225	…	55	…
Cholera … … …	…	…	3	2	…	…	…	…	…	…	…	…	…	…
Influenza … … …	…	…	2	…	1	…	…	…	…	…	…	…	…	…
Erysipelas … … …	1	…	21	…	2	…	3	…	…	…	1	…	1	…
Other Diseases of this Group … …	…	…	1	…	…	…	1	…	…	…	…	…	1	…
Total … … …	322	2	1582	4	1386	11	376	3	407	3	236	…	106	…
Constitutional—														
Rheumatism … … …	48	…	170	1	111	…	35	…	24	…	19	…	10	…
Syphilis … … …	56	…	459	…	223	…	77	…	47	…	27	…	26	…
Scrofula, Phthisis, &c. …	5	…	23	2	17	…	14	…	3	1	5	1	…	…
Scurvy and Purpura …	…	…	1	…	…	…	1	…	…	…	1	…	…	…
Anæmia … … …	…	…	5	…	16	…	5	…	…	…	…	…	…	…
Other Diseases of this Group … …	…	…	2	1	1	…	…	…	…	…	…	…	…	…
Total … … …	109	…	660	4	368	…	132	…	74	1	52	1	36	…

Military Divisions … …	Presidency.		Poona.		Mhow.		Northern.		Scinde.		Aden.		Troops on the March.	
	Annual Ratio per 1,000 of Mean Strength.													
GENERAL DISEASES.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile—														
Eruptive Fevers … …	…	…	·7	…	·4	…	1·0	…	·9	…	…	…	…	…
Continued Fevers … …	22·6	…	112·0	·25	89·6	3·67	29·7	2·04	21·9	1·76	14·2	…	144·1	…
Paroxysmal Fevers … …	637·9	4·12	278·6	·25	473·3	·81	349·7	1·02	334·8	·88	320·1	…	161·8	…
Cholera … … …	…	…	·7	·50	…	…	…	…	…	…	…	…	…	…
Influenza … … …	…	…	·5	…	·4	…	…	…	…	…	…	…	…	…
Erysipelas … … …	2·1	…	5·3	…	·8	…	3·1	…	…	…	1·4	…	2·9	…
Other Diseases of this Group … …	…	…	·3	…	…	…	1·0	…	…	…	…	…	2·9	…
Total … … …	662·6	4·12	398·1	1·00	564·5	4·48	384·5	3·06	357·6	2·64	335·7	…	311·7	…
Constitutional—														
Rheumatism … … …	98·8	…	42·8	·25	45·2	…	35·8	…	21·1	…	27·0	…	29·4	…
Syphilis … … …	115·2	…	115·5	…	90·9	…	78·7	…	41·3	…	38·4	…	76·5	…
Scrofula, Phthisis, &c. …	10·3	…	5·8	·50	6·9	…	14·3	…	2·6	·88	7·1	1·42	…	…
Scurvy and Purpura …	…	…	·3	…	…	…	1·0	…	…	…	1·4	…	…	…
Anæmia … … …	…	…	1·2	…	6·5	…	5·1	…	…	…	…	…	…	…
Other Diseases of this Group … …	…	…	·5	·25	·4	…	…	…	…	…	…	…	…	…
Total … … …	224·3	…	166·1	1·00	149·9	…	134·9	…	65·0	·88	73·9	1·42	105·9	…

Eruptive Fevers.—Only four admissions from small-pox, one in each of four Divisions, occurred during the year.

Continued Fevers.—The prevalence of these fevers was greater than in 1873, in the Poona, and Mhow, Divisions, and in Troops on the March, but was less in the remaining Divisions; the highest rate of admissions is that of Poona, it exceeds the lowest, that of the Aden Division, by 97·8 per 1,000 men, and its own rate in the preceding year by 66·4; the great prevalence of fevers in the 2nd Battalion 7th Foot at Poona mainly contributed to this result. In the Aden Division, there were only 10 admissions for continued fevers, and the proportion of fevers of this nature is lower than that of 1873, by 79· per 1,000 men. The rate of deaths from continued fevers is highest in the Mhow Division, it exceeds that of the previous year by 1·64 per 1,000 men; the deaths were chiefly due to enteric fever. The rate of the Northern Division, is fractionally higher than in 1873, it is lower in all the others except in Aden, and in Troops on the March, in which no deaths from continued fevers occurred in either year.

Enteric Fever.—As in the preceding year, the greatest prevalence of this disease was in the Mhow Division, from which 16 of the 33 admissions in the whole Command are returned; in this Division the greatest prevalence was at the station of Mhow from which 12 admissions are returned—8 by the 3rd Hussars, 3 by the 49th Foot, and 1 by the E Battery C Brigade Royal Horse Artillery. In the Scinde Division, 7 admissions are returned from the station of Kurrachee, 5 of them by the 56th Foot, and 3 by the B Battery 18th Brigade Royal Artillery. There were 6 admissions in the Poona Division, 3 in the Northern, and 1 in the Presidency, but that the number of admissions returned is not the measure of the prevalence of enteric fever in the Bombay Command, may be surmised from the following extracts from the report of one Medical Officer only: "The existence of enteric fever in a fatal form, and the large "number of cases of continued fever, several of which had a tendency to "become typhoid, seem to demand special consideration in this report." "My "remarks will be chiefly directed to the history of the two first diseases, enteric "and simple continued fever, and I will shew how closely they were allied, and "how they seemed to run into each other." A perusal of the reports of certain of the cases returned as examples of simple continued fever, leaves the impression that they are undistinguishable from this form of fever; the following extract refers to a man returned as suffering from simple continued fever: "On admission stated he had been unwell for some time past, and had "lost flesh and strength and appetite, he seemed prostrate and weak, pulse 100 "small, skin hot, temperature, morning 101·, evening 102·, tongue coated, "bowels rather loose, motions bilious, pain and tenderness over right iliac fossa, "no eruption on surface." It is unnecessary to give more than a summary of the important symptoms in the course of the illness, which terminated in recovery; the symptoms recorded were—a high temperature with daily fluctuations, tenderness and gurgling on pressure over the right iliac fossa; a relapse on the 17th day after admission in which the pulse rose to 115, and the temperature to 103, not until the 38th day after admission is it noted that the temperature had become almost normal. Six days after this entry it is recorded that the man was convalescent,—a hopeful view of the case,—as 18 days afterwards there is this entry—"Gaining "strength very slowly, complains of pains in left thigh and groin, apparently rheumatic"; a week after this he was discharged to attend as an out-patient, but in about another fortnight he was re-admitted for anæmia, remained three weeks in hospital, and was again discharged as an out-patient. Continuing his remarks, the Medical Officer observes: "The case reads very like one of enteric "fever, and, but for the absence of eruption and characteristic stools, would un-"doubtedly have been returned as such. The debilitating effects on the man's "constitution were quite as severe as that observed after enteric; he did no "mounted duty, and very little dismounted duty, from the date of his attack in "May 1874 until he was invalided to England for change in February 1875." It is unnecessary to multiply extracts relating to protracted illnesses, in which diarrhœa, tenderness over the cœcum, fever with evening exacerbations, were prominent symptoms, and which though occurring at the same time that

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enteric fever was present, are returned as cases of simple continued fever. Nearly two-thirds of the admissions for enteric fever in the Command, occurred in the third quarter of the year.

Regarding the conditions to which enteric fever at the various stations in the Command was due, special reports were made by the Medical Officers who had opportunities of observing the disease during the year. The Medical Officer of the 56th Foot in which, at Kurrachee, there were 5 admissions, states that at the time of their occurrence there was a marked fœcal contamination of the air, caused by a latrine for natives placed to windward of the barracks, the river bank was also foul with ordure; at the time he was inclined to attribute the origin of the disease in the regiment to this contamination, but subsequent reflection led him to the following conclusion: "It has been remarked that enteric fever may occur in young soldiers in this "country, not because of a special poisoning derived from the locality in "which they may be serving, but because of the action of the heat on the "nervous system; this I believe to be the true cause of enteric fever in the "56th Regiment." The breaking out of the disease at Kirkee, was attributed by the Medical Officer to the fœcal contamination of a piece of ground close to, and to windward of the hospital, in which building one of the two cases occurred. At Poona, the occurrence of enteric fever, was attributed by one Medical Officer to dampness in a particular barrack-room; another Officer reporting on the causation of the disease in other instances at the same station, observes "that it is shrouded in obscurity." The attacks at Nusseerabad, were thought to have been due to infection from the latrines for native followers, placed to windward of, and in proximity to, the new barracks. The subject of the causation of enteric fever in the 3rd Hussars at Mhow, is very fully and ably discussed by the Medical Officer, he states that it originated from the contamination of the water, and air, by fœcal impurity. To quote his words, the banks of the river were "resorted to daily by natives for purposes of "nature, and in many spots reeked with ordure, indeed, were little better "than latrines, the impure emanations from which in the hot and wet months, "from March to October, when the prevailing winds are west, and south-west, "were wafted into the barracks to leeward." Together with this contamination of the air, there was contamination of the water used by the men in the new barracks (from which a majority of the cases were received), this was taken from a well sunk in a hollow below the sloping ground on which the barracks were built; the surface washings from the ground must have been carried into the well; the water of this well had frequently been complained of by other corps occupying the same barracks, and analysis of it shewed that it contained the products of sewage contamination. The new barracks stand on the site of the old and long used lines of the native troops; the Medical Officer says that no doubt it was saturated with impurity. The small number of cases of enteric fever returned, eight in all, whilst so many persons were exposed to the fœcal pollutions in the air and in the water would not seem to accord with this theory of the causation of the enteric fever in the 3rd Hussars; but if, as is probable, many of the attacks which occurred at the same time, returned as simple continued fever, were really attacks of enteric fever, the infection was sufficiently extensive to be the adequate effect of water contamination.

No doubt the insensible bias created by the changes in nomenclature of the disease, from continued, to typhoid, and then to enteric fever, operates to reduce the recorded prevalence of the fever, now known under the latter name; it is therefore essential to bear in mind that the disease now called simple continued fever, can no more develop into the specific enteric fever, than scarlet fever, can develop into small-pox; a recognition of this truth would make it easier to trace the cause of an outbreak, by fixing on the first cases, which now probably often escape notice.

Paroxysmal Fevers.—In every Division, excepting the Presidency, and Poonah, the prevalence of paroxysmal fevers was less than in 1873; the decrease in the rate is large in every Division, in the Northern it amounts to 598·9 per 1,000 men. This decrease would appear to be explicable only on the supposition of the dying out in the present year, of a previous epidemic.

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The following Table, extracted from the report of the Principal Medical Officer, contrasts the proportional prevalence of malarious fevers in the present, and in the preceding year, at the several stations in the Command :—

Stations.	Ratio of Admissions per 1,000 of Strength.		Stations.	Ratio of Admissions per 1,000 of Strength.	
	1874.	1873.		1874.	1873.
Baroda	2225·8	..	Poona	415·6	286·0
Neemuch	1110·3	1078·1	Aden	320·1	449·2
Aboo	850·0	1788·3	Kirkee	287·3	197·8
Deolalee	719·3	518·5	Deesa	281·1	926·2
Indore	701·0	504·9	Poorundhur ..	269·7	558·8
Bombay	619·4	541·3	Sattara	250·0	431·1
Ghizree	600·0	370·4	Kurrachee ..	187·0	398·1
Hyderabad ..	592·8	466·5	Belgaum	132·9	48·2
Ahmedabad ..	546·8	645·2	Ahmednuggur..	101·3	250·0
Asseerghur ..	485·1	550·0	Nusseerabad ..	95·4	430·7
Mhow	447·0	407·6			

Cholera.—The admissions for this disease, 3 in number, were returned in the Poona Division, all of them in the 2nd Battalion 7th Foot at Poona; in connexion with which the Medical Officer of the regiment makes the following remarks: "From May to September, cases kept occurring at intervals "which, had malignant cholera been epidemic or prevalent amongst the "natives, would undoubtedly have been set down as cases of that disease, and, "in my own opinion based on the experience of four cholera epidemics were, in "reality such, altogether 12 of these cases occurred amongst the soldiers of "the 2nd Battalion 7th Foot, all presented nearly similar symptoms although "all were not present in each case."

The above remarks have a bearing on the subject in another connexion—namely, the seeming greater prevalence of cholera in former days than in the present time, and the smaller mortality then following attacks.

Rheumatism.—In the Northern, Scinde, and Aden Divisions, the prevalence of this disease was less than in the preceding year, in no Division did it prevail to an important extent.

Syphilis.—The greater prevalence of this disease in the Command than in 1873, is due to increase in three Divisions only, Poona, Mhow, and the Northern; in the remaining Divisions, and in Troops on the March, there was a decreased prevalence.

The following Table, furnished by the Principal Medical Officer, shews the relative prevalence of syphilis at the various stations in the Command for the last five years; the letters *l.h.* indicate where Police measures affecting prostitutes are in force :—

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Stations.	Ratio of Admissions for Syphilis per 1,000 of Strength.				
	1874.	1873.	1872.	1871.	1870.
Colaba	112·4	120·7	96·4	76·1	114·4
(*l.h.*) Poona	96·5	96·5	38·2	48·5	81·1
Sattara	35·7	149·7	119·6	27·3	12·1
(*l.h.*) Ahmednuggur ..	138·8	23·9	37·9	43·7	68·8
Asseerghur ..	39·6	130·0	69·6	88·7	132·3
(*l.h.*) Belgaum.. ..	75·6	69·2	58·0	134·6	99·0
(*l.h.*) Kirkee	288·7	180·2	53·0	76·7	119·8
(*l.h.*) Mhow	101·0	71·5	103·9	93·1	106·8
Indore	61·8	46·7	88·2	186·4	139·5
(*l.h.*) Neemuch ..	120·5	69·2	172·8	196·4	68·2
(*l.h.*) Nusseerabad ..	52·6	79·4	189·2	136·3	131·6
(*l.h.*) Ahmedabad ..	56·1	126·1	44·1	28·8	96·2
(*l.h.*) Deesa	90·2	40·0	33·7	107·3	223·2
Mount Aboo ..	10·0	33·6	73·8	132·7	103·4
(*l.h.*) Kurrachee ..	45·7	38·6	49·5	90·5	98·1
Hyderabad ..	33·7	82·5	26·7	103·4	36·4
(*l.h.*) Aden	38·4	75·8	12·8	27·8	44·5
Baroda	161·3	88·2			
Poorundhur ..	134·8				

Scrofula and Phthisis.—The prevalence of these diseases was slightly greater than in 1873, in the Presidency, and Poona Divisions, but lower in the others, with the exception of Mhow, in which it was nearly the same in both years ; the greatest reduction in the proportion of admissions is in the Aden, and Northern Divisions.

LOCAL DISEASES.—*Diseases of the Nervous System,* were more prevalent than in 1873, in the Presidency, Poona, and Northern Divisions, and in Troops on the March, but less in the remaining ones ; and in correspondence with increased prevalence, the proportion of deaths was higher in the Divisions named, though not in Troops on the March ; all the deaths in this order of diseases, excepting two, were caused by sun-stroke, or by apoplexy, the greatest fatality from those diseases was in the Northern Division.

Diseases of the Eye.—The rate of admissions for diseases of this order, is lower than in the preceding year in every Division, except the Mhow, the Northern, and Aden.

Diseases of the Circulatory System, are in a higher rate of prevalence in every Division, excepting the Presidency and Scinde. Of the admissions for diseases in this order, two-thirds were for palpitation, a disease of very disproportionate occurrence in the various corps.

Diseases of the Respiratory System.—Diseases of this order shew a higher rate of admissions in all Divisions, excepting Mhow, Northern, and Scinde, than in 1873. Very great differences are observed in the statistics for the two years, due probably to the transference of particular regiments from one Division to another. Of 18 admissions for pneumonia, in all Divisions together, 8 occurred in one regiment—the 83rd at Deesa, in the Northern Division, and four-fifths of the mortality from diseases in the group was in that regiment.

Diseases of the Digestive System.—Diseases of this order were more prevalent in the Presidency, Poona, and Mhow Divisions, and in Troops on the March, but less so in the others than in 1873. Omitting notice of Troops on the March, the highest rate of admissions is that of the Presidency, which exceeds the lowest—Scinde—by 117· per 1,000 men ; the highest proportion of mortality occurs in connexion with that of greatest prevalence, in the Presidency Division ; in Scinde, and in Aden, which have the two lowest proportions of prevalence, there were no deaths, but the association of comparatively low admission rates, and low death rates, does not obtain in other Divisions.

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Diseases of the Urinary System.—In every Division, excepting Poona, Mhow, Scinde, and in Troops on the March, the proportion of admissions for diseases of this order exceeds that of the previous year, the excess in the instance of the Presidency being 97· per 1,000 men.

Poisons.—Except in the Northern Division, the rate for diseases of this order is higher than that of the preceding year, but no deaths followed attacks.

Injuries.—Except in the Northern, and Scinde, the rate of admissions is higher in every Division, than in 1873, the greatest increase being in Mhow.

The admissions, deaths, and invaliding, in the several corps serving in the Command, during the year, are shewn in the subjoined Table:—

Regiments.	Average Annual Strength.	Admitted into Hospital.	Deaths.			Invalided.	Annual Ratio per 1,000.			Stations during the Year.
			In India.	Of Invalids.	Total.		Admitted.	Died.	Invalided.	
CAVALRY.										
3rd Hussars ..	495	951	6	..	6	31	1921·2	12·12	62·63	Camp of Exercise and Mhow.
ROYAL ARTILLERY.										
D Battery, C Brig., R.H.A. ..	164	196	2	..	2	6	1195·1	12·20	36·59	Kirkee.
E Battery, C Brig., R.H.A. ..	158	303	..	..	..	21	1917·7	..	132·91	Mhow.
6th Brig. R.A.	499	846	13	..	13	42	1695·4	26·05	84·17	1st Bat., Aden; 2nd, Mhow; 3rd and H.-Q., Bombay; 4th & 5th, Bombay and Baroda; 6th, Aden.
9th Brig. R.A.	644	910	1	..	1	14	1413·0	1·55	21·74	Head-Quarters and D Bat., Kirkee; B, Kurrachee; E, Camp of Exercise and Ahmednuggur; F, Kirkee.
18th Brig. R.A.	822	962	9	..	9	40	1170·3	10·95	48. 66	A Bat., Belgaum; B, Hyderabad; C and Head-Quarters, Ahmedabad; D, Neemuch; E, Nusseerabad; F, Kirkee.
Total ..	2287	3217	25	..	25	123	1406·6	10·93	53·78	
ROYAL ENGINEERS.	32	13	..	..	..	2	406·3	..	62. 50	Kirkee.

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Regiments.	Average Annual Strength.	Admitted into Hospital.	Deaths. In India.	Deaths. Of Invalids.	Deaths. Total.	Invalided.	Annual Ratio per 1,000. Admitted.	Annual Ratio per 1,000. Died.	Annual Ratio per 1,000. Invalided.	Stations during the Year.
INFANTRY.										
1st Bn. 2nd Ft.	915	955	10	..	10	21	1043·7	10·93	22·95	Camp of Exercise and Ahmednuggur, with Dets. at Sattara, Bombay, Asseerghur, and Belgaum.
2nd „ 7th „	853	1622	7	..	7	11	1901·5	8·21	12·90	Poona.
41st Foot ..	472	455	..	..	..	66	942·8	..	139·83	Arrived at Aden 26th February.
49th „ ..	797	867	5	..	5	47	1087·8	6·16	58·97	Mhow, with Det. at Indore; embarked for England in November.
56th „ ..	925	841	14	1	15	8	909·2	16·22	8·65	Kurrachee & Camp of Exercise with Det. at Poona.
66th „ ..	913	1030	4	1	5	17	1128·2	5·48	18·62	Camp of Exercise and Belgaum.
68th „ ..	934	1044	8	..	8	20	1117·8	8·57	21·41	Poona and Mhow.
83rd „ ..	965	1253	22	1	23	54	1298·5	23·83	55·96	Camp of Exercise, Deesa and Poona; with Det. at Ahmedabad.
105th „ ..	78	114	1	1	2	..	1461·5	25·65	..	Aden.
108th „ ..	841	1040	11	..	11	41	1236·6	13·08	48·74	Nusseerabad with Det. at Neemuch.
Total ..	7693	9221	82	4	86	285	1188·2	11·21	36·71	

Of the three arms of the service, the highest standard of health, as deduced by the union in it of the lowest proportions of admissions, deaths, and invaliding, was that of Infantry. The health of Cavalry was the least favourable, the admissions in the 3rd Hussars, the only corps of this arm, were in number just short of double the mean strength; fevers, both continued and paroxysmal, and hepatic diseases, were of exceptionally frequent occurrence in the regiment; the deaths were caused by fevers, and by anæmia; in the disabilities causing invaliding, there was no special preponderance of any one disease.

In Royal Artillery, the rate of admissions of all the component corps, except the 18th Brigade, exceeds that of the average of the whole force, the highest admission rate is that of the E Battery C Brigade of Royal Horse Artillery, stationed at Mhow, which suffered disproportionately from ague, and hepatic diseases, and though no deaths occurred amongst the men, its proportion of invaliding is three times greater than that of the average of the whole force. The 6th Brigade of Royal Artillery, batteries of which were stationed at Bombay, Mhow, Baroda, and Aden, was the least healthy, but there was a wide difference between the health of the batteries at Bombay and at Aden, whilst the admissions in No. 5 Battery at the former place are in the proportion of 2506· per 1,000 of the strength, those in No. 1 Battery at Aden are in a rate lower than its average strength. The admissions from ague alone, in the first-named battery were twice as many as the admissions from all diseases and injuries together, in the last-named.

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In Infantry, the highest rate of admissions is found in the 2nd Battalion 7th Foot stationed at Poona, but with it are conjoined death, and invaliding rates, much below the average; fevers, chiefly paroxysmal, occasioned nearly half of the admissions, and those on account of diarrhœa, were also numerous. In the 41st, and 56th Regiments, the admissions were fewer in number than the mean strengths, in the 41st there were no deaths, but its rate of invaliding is considerably more than twice that of any other regiment, and it is four times higher than the average of the whole force in the Command.

SANITARY REPORT.

Surgeon-General Inglis, C.B., reports:—That the barrack accommodation in this Command has undergone but little change during the past year. At Colaba new barracks for 144 men have been completed and are about to be occupied.

At Aden (Steamer Point) one new barrack to accomodate 12 men has been taken into occupation.

The condition of the Deesa barracks remains as last year, as it is not considered advisable to spend money on them pending a settlement of the railway question from Ahmedabad to Ajmere.

A new hospital for 32 men, and a Female Hospital of four beds, have been completed at Tarraghur.

At Belgaum six upper storied barracks have been completed and occupied.

Ventilation.—This has been on the whole very good; the ventilation of the quarters of the married non-commissioned officers in the cavalry lines at Mhow, although not yet quite satisfactory, has beem improved by providing venetians to the doors.

Flooring.—Mud floors still exist at Deesa, Colaba Depôt, Ghizree, and Kirkee (in married quarters). New barracks are about to be built at Ghizree.

Conservancy.—The dry earth system is in universal use, except at Aden and Colaba, where McDougall's powder is used instead. The filth platform at Asseerghur was removed in February 1874. A latrine for the hospital servants at Ghorpoorie Barracks, Poona, has been built.

Ablution, &c. Accommodation.—These have been on the whole satisfactory, and water has been abundant. At Mhow, in the Infantry Barracks, the bathing accommodation is reported as inadequate; a fine swimming bath has been finished in the cavalry lines. New and excellent lavatories have been erected in the Ghorpoorie lines, Poona.

Rations.—Very good throughout the year. Beef is issued on five and mutton on two days in each week, except at Aboo, where beef is not procurable, and Aden where salt provisions are issued once a week, and at Teethul where mutton was issued every day.

The water supply has been generally good, but at Mhow one of the cavalry wells has been closed as it had become contaminated by soakage from drains.

Government has appropriated Rupees 50,000 for the construction of a reservoir and aqueduct for Nusseerabad; this will remedy the defective water supply, which has long been detrimental to the health of the inhabitants at that station.

Sanitary condition of vicinity of Barracks and Stations.—The foreshore at Colaba has been reported by Deputy Surgeon-General Fogo to be in a foul state, and the attention of the municipality and the police has been directed to the subject, but it is stated with but little effect.

The surface drainage at Nusseerabad has been much improved.

Clothing.—Has been good and suitable to climate and season, excepting at Colaba, where Deputy Surgeon-General Fogo notes that the men of garrison batteries have to wear cloth overalls at times. Such clothing is entirely unsuited to the Bombay climate, and serge should be substituted, as all the duties are performed on foot.

The Brigadier-General Commanding at Aden reported on the "Main Pass guard room," at that station as being very hot and uncomfortable, and in a "military point of view, in a very unsuitable position for a guard room."

Plans and estimates for a new guard room at the "Main Pass" have recently been sanctioned, but funds are not at present available for its construction.

Section II.

On the Extent of Invaliding.

India. During 1874, 2,414 invalids were sent home from India, of whom 565 were finally discharged from the service at Netley ; the proportions per 1,000 of the mean strength, represented by these numbers, being 40·19 and 9·41 per 1,000, respectively, the former is 1·06 per 1,000 of the strength higher than the proportion for the preceding year, the latter is fractionally higher. The comparative results in the two years are, that the invaliding from the Bengal Command, is lower in the present year than in 1873, by 3·90, that from the Madras Command, is higher by 16·54, and that from the Bombay Command, higher by 1·78 per 1,000 men. The results of the present year, contrasted with those of the average of a period of 10 years, shew also a decreased proportion of invaliding from Bengal, with increased proportions from Madras and Bombay ; the proportion of invalids finally discharged the service at Netley, is little more than half that of the average of the 10 years period, but in a considerable measure this is accounted for by the fact, that in the present year, many invalids did not pass through Netley, but were sent direct to the Depôts of their corps, where they were discharged.

In the following Table, a summary of the classes and orders of the disabilities for which men were invalided from the three Commands, is shewn :—

Order.		Invalids sent home from			Invalids from India discharged the service at Netley.
	Station	Bengal.	Madras.	Bombay.	
	Strength	37,911	11,578	10,578	60,067
	I. *General Diseases.*				
1	Febrile Group	45	8	59	..
2	Constitutional Group ..	298	137	77	175
	II. *Local Diseases.*				
	Diseases of the—				
1	Nervous System	91	38	30	40
2	Eye	19	5	10	27
3	Ear	12	3	6	15
4	Nose	2	..	..	..
5	Circulatory System	205	72	44	157
6	Absorbent ,, ...	..	1	3	..
8	Respiratory ,, ...	57	6	14	8
9	Digestive ,, ...	322	205	107	57
10	Urinary ,, ...	15	9	7	6
11	Generative ,, ...	3	5	2	2
12	Organs of Locomotion ..	24	4	3	17
13	Cellular Tissue	4	2	1	3
14	Cutaneous system	3	6	5	3
	III. *Debility*	246	89	58	28
	V. *Injuries*—				
2	Accidental	22	10	14	17
	VI, *Surgical Operations*..	1	3	1	10
	Disease not known	1	..	..	..
	Total	1,370	603	441	565
	Ratio per 1,000 of Mean Strength. 1874 ..	36·13	52·08	41·69	9·41
	Ratio per 1,000 of Mean Strength. 1864–73	44·11	49·93	34·27	17·90

India.

Fewer men were invalided from the Bengal, and Bombay Commands, for diseases in the constitutional order than in the preceding year, but more from Madras; taking the three Commands together, the proportion is lower than in 1873, by 1·03 men per 1,000 of the strength; rheumatism, syphilis, phthisis, and anæmia, were the principal diseases in this order necessitating invaliding; comparing the present, with the preceding year, it is seen that the proportion of invaliding caused by rheumatism, a disease chiefly affecting old soldiers, is nearly the same in both years, the difference however, ·12 per 1,000, is against the present year; in the invaliding due to syphilis the proportion is ·48 per 1,000 less than in 1873; in that due to phthisis, the proportion is ·40 per 1,000 less in the present, than in the preceding year, on the other hand the proportion of men invalided for anæmia is higher by ·16 per 1,000 than in 1873. The results are too indecisive to justify confident inferences, but in the absence of other data, they throw some light on a greatly debated question of much moment—that of the alleged less physical fitness of the recruits now enlisted, than that of those of a not remote past time. The young soldiers have been drafted abroad, in the present instance to India, and the result is as shewn, that the invaliding rates due to diseases of the order in which constitutional infirmity would chiefly appear, are in a lower proportion than that of the preceding year; and though a part of this is due to the milder kind of syphilitic disease, affecting soldiers in India, in the year, a very distinct diminution in the number sent home for consumption seems to indicate that the recruits enlisted in the past two or three years, are not worse in physical constitution than those enlisted a few years before.

In the present year as compared with 1873, the invaliding due to diseases of the circulatory system is ·34 per 1,000 in excess; the proportion of one disease in the order, palpitation, is in a rate ·05 per 1,000 in excess of that of the preceding year.

Section III.

Mean Daily Sick.

The average number of non-commissioned officers and men always ineffective from sickness in 1874, was in Bengal 2168·01, in Madras 647·18, and in Bombay 530·.

The usual information, calculated from these numbers, is given in the subjoined Table:—

	Bengal.		Madras.		Bombay.	
	1874.	1864-73.	1874.	1864-73.	1874.	1864-73.
Ratio per 1,000 constantly sick ..	57·19	57·43	55·89	61·89	50·10	54·91
Average sick time to each soldier ..	20·87	20·98	20·40	22·58	18·28	20·05
Average duration of cases	14·73	13·80	16·47	16·04	14·43	14·29

Compared with the results for 1873 in Bengal, the present year shews an increase in the number constantly sick, amounting to 6·58 per 1,000 men; the average sick time to each soldier is also increased, but only fractionally; whilst the duration of each case of sickness was less by a fraction. In Madras, both the average number constantly sick, and the average sick time to each soldier are less in the present year, but the duration of the cases of sickness was longer by 2·80 days. In Bombay, all the three proportions are favourable in the present year.

Section IV.

On the Influence of Age on Mortality.

India.

The following Table shews the details of the strengths and deaths, at different ages, of the troops serving in India in 1874, and also those of the average of the ten preceding years :—

	Under 20.		20 and under 25.		25 and under 30.		30 and under 35.		35 and under 40.		40 and upwards.	
	Average Strength.	Died.	Average Strength.	Died.	Average Strength.	Died.	Average Strength.	Died.	Average Strength	Died.	Average Strength.	Died.
Bengal	970	5	12,331	163	10,605	132	7,327	109	4,995	113	1,043	40
Madras	334	...	3,944	42	2,806	34	2,362	37	1,888	32	478	10
Bombay	293	1	3,632	22	2,695	30	1,631	15	1,303	21	251	12
Total	1,597	6	19,907	227	16,106	196	11,320	161	8,186	166	1,772	62
Ratio of deaths per 1,000 of Strength	3·76		11·50		12·17		14·22		20·28		34·98	
Ditto, 1864–73 ...	8·69		16·41		22·52		31·27		43·55		64·37	

XII.—ON THE HEALTH OF TROOPS ON BOARD SHIP.

STATISTICAL REPORT.

Troops on Board Ship.

The Troops on board ship during the year, as shewn by the Returns received in the Army Medical Department, were as follows :—

I.	Corps and drafts proceeding on Foreign Service	16,674
II.	Do. returning from Foreign Service	7,505
III.	Do. passing by sea from one Command to another, White Troops	1,877
IV.	Do. Do. Do. Black Troops	1,545
V.	Invalids returning to England	3,374

I. TROOPS PROCEEDING ON FOREIGN SERVICE.

The average annual strength represented by the 16,674, non-commissioned officers and men, who embarked for foreign service during the year was 1,316; amongst them there were 693 admissions into hospital, and 7 deaths. The rates per 1,000 of the strength represented by these numbers are, for admissions 526·6, and for deaths 5·32.

The classes of diseases by which the admissions and deaths were caused are shewn in the following Table :—

Order.	Station.	To all Stations, Abroad.			
	No. of N.-C. O. and men Embarked	16,674			
	Average *Annual* Strength	1,316			
	Diseases.	Admitted.	Died.	Ratio per 1,000.	
				Admitted.	Died.
	I. *General Diseases.*				
1	Febrile Group	66	1	50·1	·76
2	Constitutional „	121	..	91·9	..
	II. *Local Diseases.*				
1	Nervous System	6	1	4·6	·76
2	Eye	8	..	6·1	..
3	Ear	1	..	·8	..
5	Circulatory System	4	..	3·0	..
6	Absorbent „	5	..	3·8	..
8	Respiratory „	57	2	43·3	1·52
9	Digestive „	101	1	76·7	·76
10	Urinary „	102	..	77·5	..
11	Generative „	8	..	6·1	..
12	Organs of Locomotion	1	..	·8	..
13	Cellular Tissue	16	..	12·1	..
14	Cutaneous System	105	..	79·8	..
	III. *Conditions, &c.*				
	Debility	18	..	13·7	..
	IV. *Poisons.*	1	..	·8	..
	V. *Injuries.*				
2	Accidental	73	2	55·5	1·52
	Total	693	7	526·6	5·32

ps on
rd Ship.

The admissions are in a proportion one-fifth higher than that of the preceding year, the proportion of deaths on the other hand, is fractionally lower.

Most of the troops now under notice were those proceeding to India, being drafts for regiments already in that country, or corps going out in the course of service. The rate of admissions, and that of deaths, amongst them is low; but in forming a judgment on this point regard must be had to the fact, that all the men had been selected after repeated examinations, were presumably in the highest state of health when embarked, and were too short a time at sea to have materially deteriorated in health.

There were only 66 admissions for diseases of the febrile order, of which two were due to *eruptive fevers*, one being a case of measles, and the other one of scarlet fever, both occurred on the voyage of H.M.S. "Crocodile" from England to Bombay. *Enteric fever*, caused 2 admissions on the voyage of the "Elizabeth Martin" to the Cape; no remarks respecting them occur in the report of the Medical Officer. *Simple continued fever*, caused 13 admissions; one fatal case occurred on the voyage of H.M.S. "Euphrates" from England to Bombay, death ensued after an illness of three days, and was proximately due to syncope. There were 7 admissions from ague.

In the constitutional order of general diseases, three admissions for *phthisis*, are returned.

LOCAL DISEASES.—In diseases of the *nervous system*, one death from sunstroke is returned; it occurred on the voyage of H.M.S. "Jumna" whilst in the Red Sea.

Diseases of the Respiratory System.—The chief feature in diseases of this order was the occurrence of 23 cases of pneumonia, two of them being fatal. Of the admissions 14, took place on the voyage of H.M.S. "Serapis" from Portsmouth to Bombay; respecting them the Medical Officer writes: "At first "I was disposed to attribute the cause to the rough, wet, and tempestuous "weather we had at starting, and the fact that the men were unable to dry their "clothes, except in the rigging, and only in dry weather, but as cases have "been admitted throughout the voyage not only amongst the troops but amongst "the sailors, I am of opinion the true cause is the difficulty there is in keeping "the decks properly dry."

Diseases of the Digestive System.—*Hepatitis*, caused 4 admissions, one case being fatal, there were also 11 admissions from *jaundice*; no remarks are made respecting the causation of these diseases.

Diseases of the Cutaneous System.—In this order there were 59 admissions for *itch*, they occurred in nine different ships, the greatest number of admissions in any one ship being 19.

CONDITIONS, &c.—The admissions for *debility*, probably, represent those of men suffering from the results of severe sea-sickness.

II. TROOPS RETURNING FROM ABROAD.

The majority of the troops from abroad came home from India, but the return of the expeditionary force from the Gold Coast in the beginning of the year chiefly influenced the sickness amongst the troops in this section. The number of effective troops, and time-expired men embarked for the voyage home was 7,505, giving an average annual strength of 644. The admissions into hospital amongst them were 405, and the deaths were 13, the rates per 1,000 of the strength, represented by these numbers, being 622·7 and 20·19 respectively.

The following Table shews the admissions and deaths from the different classes and orders of diseases :—

Troops on Board Shi

Order.		From all Stations Abroad.			
	No. of men Embarked	7,505			
	Average *Annual* Strength	644			
				Ratio per 1,000	
	Diseases.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*				
1	Febrile Group	205	3	318·3	4·66
2	Constitutional "	24	..	37·3	..
	II. *Local Diseases.*				
	Diseases of the—				
1	Nervous System	7	4	10·9	6·21
2	Eye	2	..	3·1	..
5	Circulatory System	3	..	4·6	..
6	Absorbent "	2	..	3·1	..
8	Respiratory "	30	4	46·6	6·21
9	Digestive "	51	2	79·2	3·11
10	Urinary "	10	..	15·5	..
11	Generative "	1	..	1·6	..
12	Organs of Locomotion	1	..	1·6	..
13	Cellular Tissue	4	..	6·2	..
14	Cutaneous System	15	..	23·3	..
	III. *Conditions.*				
	Debility	29	..	45·0	..
	IV. *Poisons.*	1	..	1·6	..
	V. *Injuries.*				
2	Accidental	16	..	24·8	..
	Total	401	13	622·7	20·19

The high proportion of admissions, and of deaths, from diseases of the *febrile* order, and in the latter particular of diseases of the *nervous system*, is accounted for by the then recent employment of the Expeditionary Force on the Gold Coast. In diseases of the *respiratory system*, pneumonia caused 4 deaths amongst the men returning home from India.

III. TROOPS PROCEEDING BY SEA FROM ONE STATION TO ANOTHER.

WHITE TROOPS.

The number of non-commissioned officers and men so embarked during the year, was 1,877, giving an annual average strength of 143; their admissions into hospital, were moderate in point of number, and unimportant in kind, no deaths occurred.

The Classes of diseases by which the admissions were caused, are detailed in the following Table :—

Troops on Board Ship.

		White Troops.			
Strength embarked		1877.			
Average *Annual* Strength		143·			
				Ratio per 1,000.	
Order.	Diseases.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*				
1	Febrile Group	10	..	69·9	..
2	Constitutional ,, ...	12	..	83·9	..
	II. *Local Diseases.*				
	Diseases of the—				
1	Nervous System	2	..	14·0	..
2	Eye	1	..	7·0	..
5	Circulatory System	1	..	7·0	..
6	Absorbent ,, ...	1	..	7·0	..
8	Respiratory ,, ...	2	..	14·0	..
9	Digestive ,, ...	10	..	69·9	..
10	Urinary ,, ...	20	..	139·9	..
11	Generative ,, ...	2	..	14.0	..
12	Organs of Locomotion	1	..	7·0	..
13	Cellular Tissue..	7	..	48·9	..
14	Cutaneous System	15	..	104·9	..
	III. *Conditions.*				
	Debility	2	..	14·0	..
	IV. *Poisons*	1	..	7·0	..
	V. *Injuries.*				
2	Accidental	10	..	69·9	..
	Total	97	..	678·3	..

IV. TROOPS PROCEEDING BY SEA FROM ONE STATION TO ANOTHER.

BLACK TROOPS.

The troops in this category consisted of the 2nd West India Regiment, which proceeded from the Gold Coast, to the West Indies, after its service with the expeditionary force in the campaign in 1873-74, and of detachments of the same corps, and of the 1st West India Regiment, passing from one island to another, in the Windward and Leeward Islands Command.

The strength of the non-commissioned officers and men embarked, was 1,545, giving an average annual strength of 130.

The admissions amongst the men were 189, the deaths 24; the former being in the proportion of 1453·1, and the latter of 184·6 per 1,000 of the average annual strength.

The Classes and orders of diseases, by which the admissions and deaths were caused are shewn in the following Table:—

Troops on Board Ship.

		Black Troops.			
Strength Embarked		1,545			
Average *Annual* Strength		130.			
				Ratio per 1,000.	
Order.	Diseases.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*				
1	Febrile Group	11	1	84·6	7·69
2	Constitutional „	29	..	223·1	..
	II. *Local Diseases.*				
	Diseases of the—				
1	Nervous System	3	1	23·1	7·69
2	Eye	2	..	15·4	..
5	Circulatory System	1	2	7·7	15·39
8	Respiratory „	83	18	638·5	138·46
9	Digestive „	18	1	138·4	7·69
10	Urinary „	6	..	46·1	..
11	Generative „	1	..	7·7	..
13	Cellular Tissue	7	..	53·8	..
14	Cutaneous System	12	..	92·3	..
	V. *Injuries.*				
2	Accidental	16	1	123·1	7·69
	Total	189	24	1453·8	184·61

The statistics in the Table are mainly those of the Head-Quarters and Service Companies, of the 2nd West India Regiment when on the voyage from the West Coast of Africa, to Jamaica; 129 of the admissions and 23 of the deaths occurred amongst them. The chief features in connexion with the medical occurrences of this voyage, as given in the report of the Medical Officer are these: the regiment consisting of 624 non-commissioned officers and men, embarked on the 19th of March at Cape Coast Castle in the steam ship "Nebraska" for conveyance to the West Indies: "The general health of the men when em- "barked was much broken down by long and arduous service in the African bush, "extending over nine months, most of them, as their medical history sheets shew, "had suffered from fevers, dysentery, and diarrhœa." Forty-seven men were embarked sick, the most prevalent diseases amongst them being bronchitis, and dysentery; one case of pneumonia was also received on board. Four days after their embarkation the ship sailed, and after remaining nearly three weeks at Sierra Leone, the ship proceeded to the West Indies; during her stay at Sierra Leone, illness, stated to have been "acute bronchitis running into fatal typhoid "pneumonia," broke out, the exciting cause of the attacks seeming to the Medical Officer to be the habit the men acquired of sleeping on deck at night, half clothed, when a damp malarious wind was blowing. "The result "was the outbreak of bronchitis which almost assumed the character of an "epidemic, the want of stamina in the men's constitutions then became "apparent, the disease in the fatal cases running at once into pneumonia of the "typhoid form, and death occurred without an attempt at a rally, notwithstand- "ing the liberal use of stimulants, &c." A portion of the men were landed *roops on oard Ship.*

at Barbados, and after a short detention there the ship reached Jamaica, and the regiment disembarked on May 18th. The admissions from bronchitis and pneumonia together, were 71, and the deaths from the same diseases were 18; the first death from pneumonia on the voyage, occurred on the 8th of April, the last on the day of disembarkation. The average duration of the cases which ended fatally, was under 7 days, the period varying from a minimum of 2 days, to a maximum of 13. In addition to the 18 deaths from pneumonia on board the "Nebraska," 3 took place within a week after arrival, amongst the men landed from the ship, and 2 at later dates at Jamaica. Two opinions respecting the nature of the illness may be held, the first being that the pneumonia observed was an affection intercurrent in the course of the remittent fever of the West Coast of Africa, or some other fever; the second that an outbreak of epidemic pneumonia took place, but sufficient data are not available for the determination of the exact nature of the disease occurring amongst the men of the 2nd West India Regiment; the symptoms in the illnesses, other than those which are given in the preceding extracts, cannot now be ascertained, and the want of facilities for the purpose on board ship, prevented the examination of the bodies of those who died, and so deprived the Medical Officer of the means of verifying his diagnosis; respecting the cases landed at Jamaica in which death followed, it is merely stated that, "nothing "was found worthy of special remarks."

V. Invalids returning to England.

The number of invalids embarked for England, at stations abroad, was 3,374, giving an average annual strength of 346. The deaths at sea amongst the invalids were 62; they have as usual been added to the Commands from which the men were invalided.

SUMMARY.

Summary.

TABLE shewing the Sickness, Mortality, Invaliding, and the proportion constantly Non-effective from Sickness per 1,000 of Mean Strength, in the White Troops at Home and Abroad, during the year 1873, and on the Average of the ten years 1863–72.

WHITE TROOPS.	Annual Ratio per 1,000 of Mean Strength.									
	1874.					1864–73.				
	Admitted into Hospital.	Died.	Sent Home as Invalids.	Discharged as Invalids.	Constantly Non-effective from Sickness.	Admitted into Hospital.	Died.	Sent Home as Invalids.	Discharged as Invalids.	Constantly Non-effective from Sickness.
United Kingdom	840·7	8·79	..	29·66	38·59	845·1	9·17	..	28·47	41·44
Gibraltar and Malta	745·0	7·27	26·11	16·53	35·25	750·0	11·12	26·95	18·03	37·94
Dominion of Canada	613·1	6·00	23·42	16·22	29·68	647·5	9·49	16·70	13·08	30·86
Bermudas	578·8	10·18	21·97	22·50	27·94	751·1	26·45	22·10	13·22	38·84
West Indies	1177·5	16·90	28·02	10·51	46·55	1067·2	17·05	31·15	15·47	47·65
St. Helena and Cape	905·8	14·40	18·10	11·93	43·61	1042·6	10·56	30·24	22·19	51·81
Mauritius	1239·1	16·74	19·13	2·39	35·83	1309·7	17·85	50·83	18·97	52·32
Ceylon	834·0	6·04	34·20	9·05	36·67	1267·4	21·95	44·11	22·38	57·87
China and Straits Settlements ..	1172·0	9·77	48·29	20·62	43·81	1819·4	34·97	72·65	32·67	71·79
India	1333·6	14·22	40·19	9·41	55·69	1461·9	24·22	43·56	17·90	57·49
On board Ship	566·3	9·51	..	..	..	620·4	10·66	..	..	..

APPENDIX.

APPENDIX No. 1.

CONTRIBUTIONS TO THE MEDICO-MILITARY TOPOGRAPHY OF THE PERSIAN GULF AND VALLEY OF THE EUPHRATES AND TIGRIS.

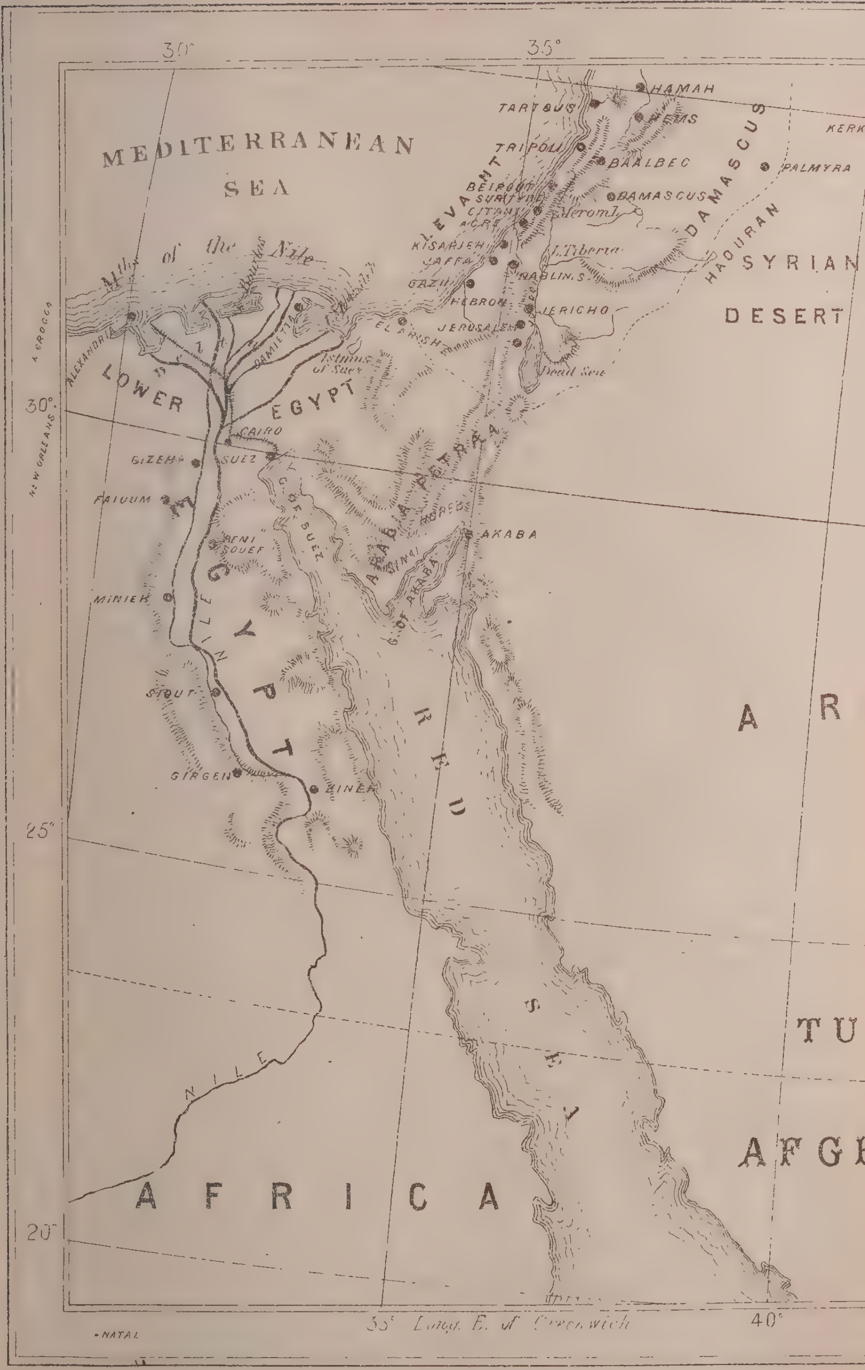
By Surgeon George J. H. Evatt, M.D., Army Medical Department.

Introductory remarks.

Introductory Remarks.—The medical topography of all our Indian garrisons and cantonments having been reported upon from year to year by the officers of the Army Medical Department stationed in them, I propose in this, my Examination Topographical Report, to record my impressions and observations, made during a tour in the leave season of the year 1873. During that period I visited the shores of the Persian Gulf and the Valleys of the Euphrates and Tigris—portions of the world now but little known, but which, from the gradual decadence of the Ottoman Empire, the drawing together of the English and Russian frontiers in Asia, as well as from the probability that a new road to India may be opened by the Euphrates Valley, will one day command great attention; how distant or how near that day may be, I do not pretend to say, but I propose in the following pages to note such facts as would be of some assistance to any officer of the Army Medical Department engaged in service in these parts.

Brief Summary of Contents.—Start from Bombay, and call at Kurrachi. By steamer, along the coast, to Gwadur on the Mekran or Beloochistan coast. Thence, crossing the Sea of Oman, visit Muscat in Arabia. Thence, heading up the Oman Sea enter the Persian Gulf between Ormuz and Cape Mussendom, and call at Bandar-Abbas. Thence, along the coast of the Jeziret-el-Tawilah. to Lingah. From Lingah proceed to Bushire. Thence, passing the Isle of Karak, visit Kowet, on the Arabian coast of the Gulf, and then, entering the *Shatt-el-Arab*, or the united stream of the Tigris and Euphrates, pass Fao, and proceeding still up the river, visit Bassorah, on its shores. Thence, *viâ* the river still, proceed up stream, and, at Koornah or Goornah, enter the Tigris, and proceed up its waters to Bagdad. From that city, cross the Desert of Mesopotamia to the Euphrates, and, crossing that river, enter Eastern Arabia, visit the holy cities of the *Shiah* sect of Mahometans, viz., Kerbela and *Nejf* or Meshed Ali. Thence visit the ruins of Babylon, and again crossing the Euphrates, and again crossing the desert of Mesopotamia, reach Bagdad, and there terminate this report.

There are several routes existing between India and Persia or Asiatic Turkey. One way, and by far the easiest, is by sea from Bombay. The other routes are all by land, and whether one leaves India by the Khyber Pass or any of the small passes in the Suleiman range of mountains, between the Khyber and the Bolun Pass, one must still cross this mountain range by narrow and difficult defiles, where, in addition to the difficulties of nature, a lawless and desperate race of mountaineers harrass and attempt to destroy every caravan, and even embarrass in a grave degree the advance of an army. Thus history points out our difficulties in 1839 and 1841, in these passes, and in days more ancient under the rule of the Delhi emperors, it was found expedient to pay a tribute or *douceur* to these wild and savage marauders, to keep the passes open. Having crossed the mountain ranges, even then one advances through a country full of difficulties, and whether one goes by the northern part of Afghanistan, *viâ* Cabul, or, through the more southerly, *viâ* the Bolun Pass, Quettah, and Kandahar, before reaching Herat, near the Persian frontier, a mountainous country, difficult to travel has to be traversed. From Herat



30°
35°
MEDITERRANEAN SEA
Mths of the Nile
ALEXANDRIA
DAMIETTA
LOWER EGYPT
Isthmus of Suez
EL ARISH
CAIRO
GIZEH
SUEZ
FAIUUM
G. OF SUEZ
BENI SOUEF
MINIEH
NILE
EGYPT
SIOUT
GIRGEN
ZINEH
RED SEA
ARABIA PETRÆA
HOREB
SINAI
AKABA
G. OF AKABA
LEVANT
HAMAH
TARTOUS
HEMS
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BAALBEC
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L. Tiberia
KISARIEH
JAFFA
GAZA
HEBRON
NABLUS
JERICHO
JERUSALEM
Dead Sea
DAMASCUS
HAOURAN
PALMYRA
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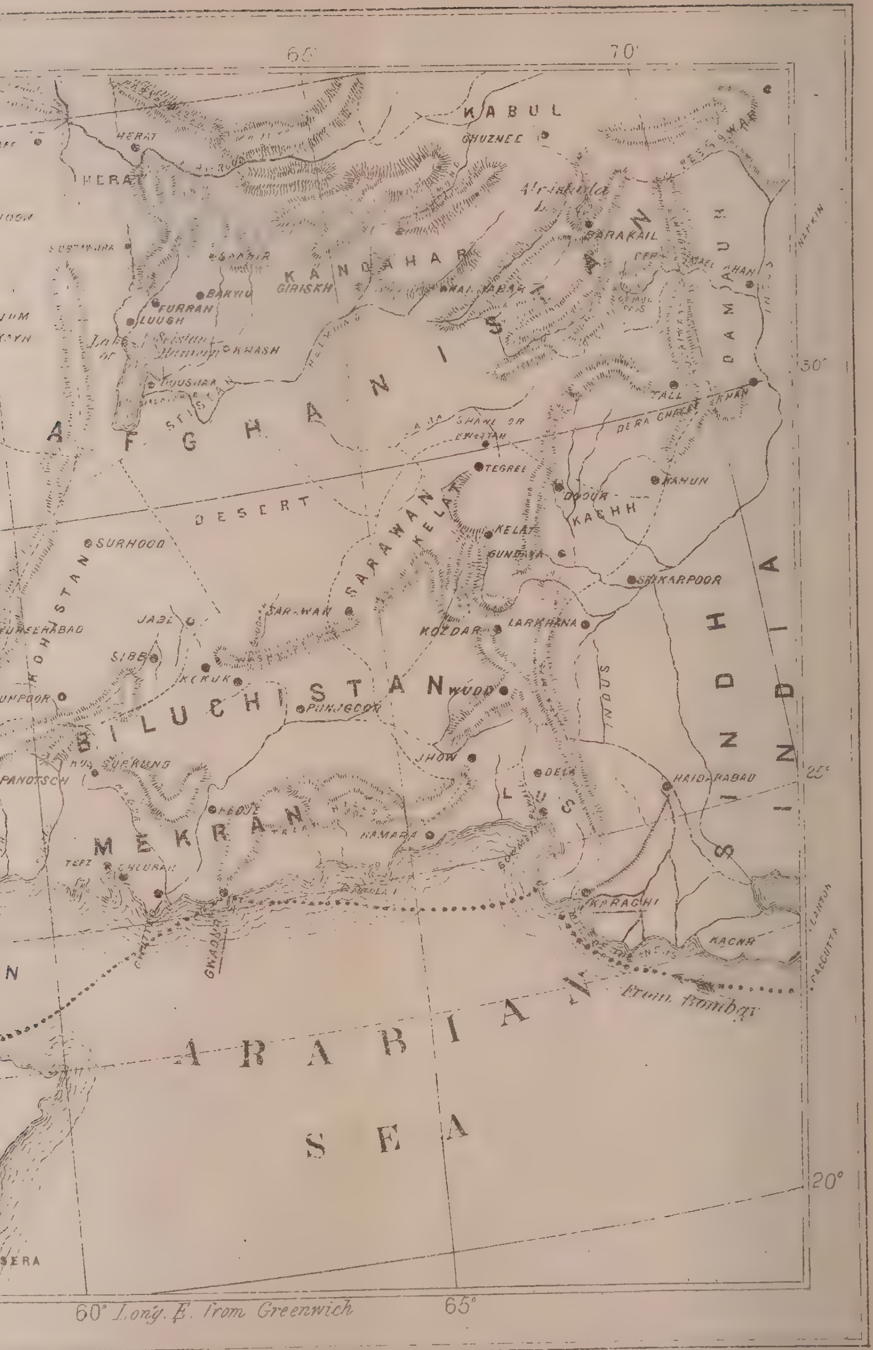


Dangerfield Lith 22 Bedford St. Covent Garden.

oads, *viâ* Meshed, lead to Teheran, and from thence to the Caspian is but a ew days' ride. Once on the Caspian, London is reachable in 20 days, *viâ* the olga, Tsaritzin, Moscow, and St. Petersburgh. The general character of hese Afghanistan routes are well known, and have been very fully described y many English officers.

Doubtless, if ever the English Forces are called on to serve in Persia, or in he Euphrates Valley, complications will render it very likely that forces may ave to enter Afghanistan also, but the direct and easy road to Southern ersia and the Euphrates Valley is by water from Bombay.

All troops or private passengers for the Persian Gulf or Euphrates Valley will robably first arrive at Bombay either from England or from India itself. At ombay, great facilities exist, as well because it is the terminus or commenceent of the entire Indian railway system, as on account of its fine harbour nd good arrangements for embarkation. Three (3) days' sail from Bombay, hrough the Gulf of Cutch, brings one to Kurrachi. All vessels trading up he Gulf call in at this port for orders, as it is the last port proceeding in that irection on English territory. When the Indus Valley Railroad is finished his route will bring down all troops and stores from the Punjaub to Kurrachi, nd in the event of an expedition they would embark at this station for the ulf. Kurrachi has often been described, and it is sufficient to note, that in ase of any service in the Gulf the sanitarium at this port, called Ghizri, as ell as the European Barracks, &c., could be utilized as a depôt for sick or ounded men. The climate, compared with that of the Gulf, is salubrious; nd men would make good progress here.

Gwadur.

In leaving Kurrachi, we leave the last English station in India in the direcon of the Gulf, and we sailed from Kurrachi 270 miles west, along he Mekran or Belooch coast towards Gwadur. This Mekran coast is ngularly inhospitable and barren in appearance, presenting to the observer rom the sea side a long white line of cliffs, against the bases of which he waves of the Arabian Sea beat. Where, here and there, a view of he interior can be seen, low sand-hills and burnt-up desert plains alone re visible. It was along this coast—*the country of the Icthyophage*—that he soldiers of Alexander, returning to Babylon and Greece after their Indian ampaign, marched, and suffered, as one would to-day, from intolerable thirst, rom the excessive heat and deficient water supply; and where, to-day, the nglish coasting steamers ply, the Greek fleets protecting the flanks of the recian army sailed. In the ravines of this rugged and inhospitable coast dates re found growing, and indeed from Kurrachi along the entire Gulf shores, the ate tree (*Phœnix dactylifera*) flourishes in a greater or lesser degree. This ardy tree produces a rich and nutritious fruit, which may truly be said to be he standby and mainstay of Arab and Persian life. Along this Mekran shore t is eaten by every living creature, even the very dogs consuming it, and for attle and horses it is a fattening and pleasant food, and is to-day largely imorted into England to form the basis of some widely advertised cattle foods. ressed into masses, it is carried by the caravans all over the Desert, nd forms the main support of the Arab races. Some of the better kinds rowing near Bassorah, at the head of the Gulf, are wonderfully good, reembling some excellent preserve rather than a natural fruit.

A break in the rugged sandstone walls that bound this Mekran coast, shews o the traveller from the seaward the petty town of *Gwadur*, standing at the he head of a little harbour of the same name. Gwadur is a small fishing illage and would be in no sense important, were it not that it is the only ort along this dreary and desolate shore. It is, however, on this account imortant, and here we find an English political officer resident, who is subrdinate in his duties to the Resident at Bushire. It is also a post of the ersian Gulf Telegraph Line,—a subordinate means of communication between ndia and England, running from India up the Gulf to Bushire; hence, *viâ* hiraz and Ispahan, to Teheran, and thence, *viâ* Russian territory, to Kertch nd Europe. Another route of line also exists from Bushire to Bassorah, agdad, and Constantinople. We will tabulate in order certain notes about wadur:—

(*a*.) *Latitude*, 25° 10′ N.; longitude, 61° E.

(*b*. *Population* about 1,200; race of people, mixed Arab and Belooch, the Semitic type prevailing. A few Hindoo merchants, of the *Banian* or *Bunyah* caste, are also found here.

(*c.*) *History* devoid of interest.

(*d.*) *The Religion* of the country and people is Mahometanism of a strict type.

(*e*), (*f*), (*g.*) *The Civil and Military authority* are here merged in one official —a *sheikh* or chief, who rules in a desultory manner and owns a weak allegiance to the Sultan of Muscat on the opposite shore of the Arabian Sea. The English Resident has, however, on some occasions been compelled to call in armed assistance from Kurrachi to prevent rival factions from destroying the whole place. Law and order are in a poor condition here.

(*h.*) *The Commerce* of the place is trifling, there being no export of any importance. Good fishing exists along the coast, and sharks' fins are exported to China. English piece goods are purchased by the dwellers in the interior. The Arab sailors carry on a coasting and carrying trade along the Gulf, and are bold and daring seamen, carrying their petty vessels as far as Zanzibar, on the Eastern African coast. Doubtless to these daring seamen we owe the first dawn of navigation as an art in the Western Continent.

(*i.*) *Food Supplies.*—In case of an expedition, or indeed for the smallest body of Europeans, no food supplies in any quantity can be obtained.

(*j.*) *Climate.*—The influence of the Monsoon is felt in a moderate degree during May till October at Gwadur, but the heat is intense, and hot winds from the dry burnt-up interior are felt. In the winter, during December and January, it is cold, and piercing winds blow down from the interior.

(*k.*) *Clothing.*—During the greater part of the year (March to October) white drill clothing should be used by English troops serving here. Flannel under clothing is also required. During November, December, January, and February, serge clothing, as in India, should be worn. The wicker helmet, as adopted by English troops in India, must be worn here the whole year round.

(*l.*) *Diseases.* Remittent fever prevails, and Englishmen rarely enjoy good health here; the climate is exhausting, and the food, particularly vegetables, deficient to a degree. Ophthalmia prevails among the native population.

(*m.*) *Buildings for Hospitals.*—No buildings fit for hospital use are to be found, and indeed, with Kurrachi so close, no sick man should be landed here. The buildings in the town are wretched mud huts, the house of the English Resident and the Telegraph Office being the only *abodes fit for Europeans.*

Muscat.

We before noted that no port or town existed on the shore of the Arabian Sea except Gwadur, *on the Indian side*, and now we turn towards the Arabian side of that sea, and find Muscat on that shore. We steam for a day and a half due south through the Sea of Oman for 245 miles from Gwadur, and reach Muscat. We may here note that Aden and Muscat occupy very similar positions at either extremity of the Arabian peninsula, Aden being at its south-west and Muscat at its south-east extremity.

(*a.*) Muscat is a town of some importance, being the centre of whatever government exists in Oman, and being the only port for many hundred miles along the southern and eastern shores of the Arabian peninsula. Its lat. is 23° 30′ N., long., 58° 38′ E. Rugged and burnt-up basaltic rocks, some 3,000 feet high, devoid of all vegetation, and very dreary in aspect, form the main feature of the inhospitable Arabian coast. Fahil Island, a rock some few miles from Muscat, forms a landmark to the little port. An almost land-locked, rock-surrounded bay is the harbour of Muscat, half-a-mile wide, three-fourths of a mile deep, and 300 yards wide across its mouth, the white houses of the town glistening in the sunshine at the head of the harbour most distant from the entrance. Cliffs 300 feet in height, and of incomparable ruggedness, rise from the water's edge all round the harbour, their irregular summits crowned by ricketty forts, built in the old days of Portuguese supremacy, and since then gradually sinking to decay, and now very shaky indeed, their principal use being to fire salutes in return to odd men-of-war that enter the port, and in times of civil commotion—a very common event—to fire at one another across the harbour.

The town is enclosed by walls in a tumble-down condition; the streets narrow, irregular, and filthy, the bazaars or market-places being poor and indifferent. The houses are two or three stories in height, enclosing a courtyard in the centre, and with rooms and verandahs looking into it. The so-called Palace of the Sultan, and the residence of the English Resident, a gentleman of the Indian Government, are the only respectable buildings in the place. The town of Muscat is the centre of government for the province or nominal kingdom of Oman, a territory several hundred square miles in extent, and occupied by some 100 families or clans of Arabs, over whom the Sultan of Muscat exercises a sway almost purely nominal. The country in the interior is intersected by ravines, and some of the valleys which open out from Muscat towards the interior, are fertile, producing dates, corn, rice, and other productions in some quantity. Indeed, it is quite surprising, when one looks at the desert character of the country, to think that any vegetable life could exist. Quite close to Muscat is another little port, called Muttra, occupied by Mahometan merchants from the Indian mainland. It is about one mile from Muscat.

(*b*.) *Population.*—The population of Muscat, like that of all Mahometan countries in which the taking of a census is much objected to, is very difficult to be arrived at. Probably 10,000 or 12,000 must be the maximum. Of the interior population no fixed data as to numbers exist, but about 100 families or clans of Arabs exist, and occupy the district. Four races may here be met with:—1st. *The Arab or Semitic Race.*—Dignified, grave, handsome men, with the well-known Jewish or Semitic type of features. They constitute the dominant and ruling race in the town and country, and all bear arms in quantity. The Arab women are not nearly so fine a race as the men, but are by no means bad looking. They wear an open-work gold-embroidered veil, partially concealing their faces, but they seem to lead even in the town, and certainly in the country, a freer and more independent life than Indian Mussulmans allow to their women. 2nd. The *Khojah*, or Mahometan merchant class, not Arab but probably of Indian origin, quiet and orderly, and living principally in the Muttra quarter of the town.

3rd. *The Abyssinian or Afrioan race.*—Very numerous. These people, principally women, are the slaves and concubines of the Arab men. They were, in by-gone times, and even recently, if report be true, imported from Zanzibar and various parts of the East African coast. Domestic slavery exists in the entire Arabian peninsula, and, although it is still slavery and should be put down, it is true that in these countries the master and slave—tied by a common and democratic faith, and a common colour—are drawn into a closer and friendlier contact than could occur in western slavery. Constantly the slave eats with his master, and always dwells in his house, and the kindness of the Arab men to their Abyssinian concubines is proverbial.

Although the sufferings in the slave *dhows*, or Arab coasting vessels, may be and are extreme, still oppression and suffering is reduced to a minimum in this Arabian domestic slavery.

4th. *The Hindoo or Indian element*, principally merchants, who monopolise all the trading interests. Many of them are highly intelligent enterprising men, and come principally from the Guzerati districts of India. These men are of Aryan race, and have that peculiar yellow colour which is very striking when compared with the sallow hue of the Arab. They are a money-making race—trembling at the sight of a sword, and protected here, as all along the Persian Gulf shores, by the *prestige* of the English flag.

(*c*.) *History.*—In the 16th century the Portuguese, then dominant in all the Eastern seas, had a settlement here, and built forts and edifices, many of which still remain: but no trace of the blood of that race is now to be found in Muscat. In the declining days of Portuguese supremacy in the East, the Arabs combined here and seized the place from them, and set up a government of their own under an *Imaum* or Pope-King—a combination of the civil and religious power, and this Imaumship remained until 1856, when a Sultanate, as at present existing, was established.

Zanzibar, on the East African coast, was once a dependency of Muscat, but in the constant petty internal dissensions that have taken place since 1856, Zanzibar has been severed from the Muscat Sultanate and made an almost independent State.

The rulers of Muscat have been for many years friends of the English Government.

(*d.*) *Religion.*—Mahometanism of a very strict and bigoted type, almost amounting to Wahabism, or the Mahometan Puritanism, has been the religion of this place. Under the influence of Wahabi revivalists the late Sultan endeavoured to carry out all the strict Wahabi views, by suppressing all smoking, drinking, and being up late in the streets at night, and by enforcing regular church attendance; but in vain his efforts, human nature prevailed, and men lived much as before. Wahabism has much power in the interior the Arabian peninsula.

It will be noted that the Mahometanism of Muscat is quite free from that well-marked Hindoo taint which makes Indian Mahometanism so wretched a copy of the views taught by Mahomet. There are a few Hindoos here, who have a temple in the town. Doubtless, nothing but the fact that these Hindoos are English subjects, and protected by the English flag, saves their temple from the iconoclastic zeal of all true Mahometans in Muscat.

(*e*), (*f*). (*g.*)—The *civil and military power* centres in the hands of the Sultan, whose rule is despotism, tempered by the Koran and revolution. Anarchy constantly prevails, and a good revolt, like a thunder-storm, now and then clears the political atmosphere. The Army—if such a name can be given to a set of marauding ruffians—consists principally of Bedouin Arab adventurers, always a worthless race.

(*h.*) *Commerce* is considerable, many buggalahs—and indeed large vessels—coming to the port. Rice is imported in quantity from Burmah, and the dates of the Batneh coast are exported in quantity. English piece goods are largely imported from Bombay, and are sold into the interior of the country.

(*i.*) *Food Supplies* are fair, although at first sight one wonders where any food can possibly be raised. Mutton and fowl is procurable, and fruits grow in the ravines about the town. Water for vessels is obtained from wells outside the walls of the town; they are 8 or 9 in number, and are about 100 feet in depth.

(*j.*) *Climate* is very trying to English life, and in the summer the heats are excessive. The rocks around the place retain their heat, and turn the town into an oven. In winter the place is cool during January and February. The rainfall amounts to nearly (10) ten inches annually.

(*k.*) *Clothing.*—In the hot season the cotton clothing, as in India, with flannel shirts; in winter the serge clothing might be worn in November and December.

The wicker helmet, as in India, will be required throughout the whole year.

(*l.*) *Diseases.*—Ague and remittent fever exist; ophthalmia is very common. No sanitary precautions, of course, are observed. Cholera now and then carries off many victims.

(*m.*) No building suitable for a hospital exists. Shelter for healthy men could be found in some of the buildings near the harbour, and some might be encamped near the wells in the ravines outside the town, taking care to avoid the shallow graves of departed Muscatis which exist in that direction. A ship in the harbour would be a more suitable place for a hospital, and it would be cooler than any shore site.

Steering northwards and slightly eastwards from Muscat through the Sea of Oman, one approaches that narrow opening which, bounded on the Arabian side by Cape Mussendom and the *Ruweis-el-Jebel*, or Cape of Mountains, and on the Persian side by the historic Isle of Ormuz, constitutes the entrance to the Persian Gulf. Of the portions of the Persian and Arab shore which bound the Sea of Oman from Gwadur and Muscat to the entrance to the Gulf, little remains to be said. The shore on the Persian side is rocky, burnt-up, precipitous, singularly inhospitable, and in the summer season liable to heats rarely equalled in the world. Two spots along its extent may be noticed—one being Jashk, a lonely telegraph station, and, in the old days, when Portugal held Ormuz, an English trading depôt, and the second being the *Koh-i-Mubarak*, or Holy Hill—a prominent landmark near to the entrence into the Persian Gulf.

Of the shore on the Arabian side, the first portion immediately above Muscat towards the Gulf, is called the Batneh coast, it is low-lying and somewhat fertile. Dates of very excellent quality are here obtained, and they are supposed to be amongst the finest in the world. But beyond this coast, and nearer to the entrance to the Gulf, a more rugged, barren, and inhospitable coast-line it is impossible to imagine. A few Arab fishermen alone find a subsistence along its course. As one draws near to the Gulf entrance, a succession of high lands mark the place, terminating in two mountains called, respectively, *Jebel-Lahrin* and *Jebel-Kehwa*, some 6,000 feet in height. Rugged in aspect, they stand fit sentinels to the dreary shores within the Gulf.

Persian Gulf in general.

The Persian Gulf.—All entrance by water into the Gulf from the southward must be made at its narrow *embouchure* between Mussendom and Ormuz, where the width across is about 29 miles. Of the Gulf generally certain remarks may be made. It is called by the native populations the *Khalij-al-Fars*, and is 450 miles in length, and varies from 100 to 180 miles in breadth. It is bounded on the north-east by Persia, and on the south and west by Arabia. The shores on the Persian side consist of successive mountain ranges running parallel to the shore, and having between their bases and the sea a narrow strip of level land called the *Germsir*, or hot district, probably the hottest part of the known world. Without rain, without rivers, without vegetation, it is impossible to imagine a land more singularly barren, more unattractive to the traveller or more desolate in appearance. Viewed by contrast with these unlovely shores, India seemed a delightful garden, green, verdant, and supremely fertile.

The Arab shore is low and shoally, equally burnt up and unfertile, and competes with its neighbour of the opposite side for the honour of being the hottest place in the world.

The principal towns along the shores of the Gulf are Bandar-Abbas, Lingah, and Bushire, on the Persian side; and Bahrein and Kowet on the Arabian littoral. Bassorah, standing as it does on the banks of the *Shatt-el-Arab*, at the head of the Gulf, cannot properly be included in the list of towns, but requires separate notice. At the head of the Gulf, the united stream of the Euphrates and Tigris, called the *Shatt-el-Arab*, or River of Arabia, pours a splendid torrent of water, highly charged with alluvial deposit, into the Gulf, and this deposit, which in ancient periods of time, formed the land of Mesopotamia, is still in our day carrying on, with slow but very certain progress, the same work as of old. Gradually the channels at the mouth of the river are being silted up, and new land slowly forming.

The waters of the Gulf, owing, it is probable, to the very excessive evaporation caused by the fierce heats, are very highly saline, more so than any other portion of the ocean, and the boilers of steam-vessels soon shew how considerable the deposit of salt must be. They are also highly phosphorescent. The climate of the Persian Gulf requires special notice. Few, if any, climates in the world are more trying than this to the European constitution, and the washed-out and weakly condition of every European met with, even including the crews of our war-vessels serving in the Gulf waters, was very conspicuous. The heats of the summer are fierce beyond endurance, often rising to 150° (Fahrenheit) in the sun and 120° (Fahrenheit) in the shade. This heat is not the dry heat of the desert or of the Indian hot season, but a moist water-laden heat, depressing to a degree to those exposed to it. The dwellers amidst the plains of the Mesopotamian Desert, themselves inured to a furnace heat, are unable to stand before this prostrating temperature, and the sufferings endured by the European may fitly be imagined. The really hot weather draws to a close in September; November is described as being agreeable and pleasant to our ideas; December is cold, with that cutting and penetrating cold that those alone who have felt it can appreciate. It begins to get warm again in February, and by August, which is the hottest month, the climax is reached.

The rainfall is quite unimportant, not being more than 8 or 10 inches, and even this small amount is very precarious. Every effort is made to preserve this water by the construction of reservoirs near the towns, and it can easily be understood that with so petty a water supply vegetable life must be in a poor way. Owing, however, to the high temperature in the daytime, and an atmosphere highly charged with moisture, the dewfall is very considerable, and is said to be very injurious to those exposed to its effects.

The prevailing wind is the *Shemal*, a north-west wind which blows nine months in the year, and rages during July and August. This wind is in these months charged with the fierce heats of the Desert, and likewise carries on its wings a fine impalpable dust from the same plains, obscuring the damp and muggy atmosphere, and covering everything exposed to it with layers of sand. It can be imagined that this does not add to the bearability of the wind. The south-east wind, called the *Koss*, blows in the winter, and is the rain-bringing wind. The south-west wind is called *Saheili*. Squalls, often of dangerous severity, rush down from the ravines along the shores, and St. Elmo's light, the terror of the forecastle, proves the highly electrical condition of the Gulf atmosphere.

The sicknesses of the Gulf are those incident to its climate. Cholera rages from time to time along its shores, and many thousands have at times been carried away in the long-shore towns, innocent of all sanitary regulations.

The European sailors of our war-vessels have at different times been also attacked. Heat apoplexy is very deadly, and a ghastly record exists of the deaths many years ago of 3 officers and 21 men of H.M.S. "Liverpool," from this disease in one day; and even in 1873, when I visited the Gulf, the care-worn and depressed look of these sailors, pent-up in little gunboats in this, the hottest and most exhausting of tropical climates, was painfully evident. Doubtless the want of vegetable food and generally nourishing diet assisted the exhausting climate in bringing about this debilitated condition. Small-pox is not uncommon, and inoculation has been and is still practised with its usual dangerous results.

Ophthalmia is very prevalent, and especially at Bahrein, the number of injured eyes one sees is noticeable. Europeans up the Gulf suffer from remittent fever, which is very debilitating in its effects, and no recovery seems to be permanent that is not attended with complete change of air from the Gulf shore. The Bagdad boil is not noticed along the Gulf, although it is far from uncommon at Bassorah and rages at Bagdad.

Pearl Fishery.—The one great, and indeed special, production of the Gulf is the pearl fishery; 2,000 vessels, generally large half-decked boats, are employed annually in this occupation, and in 1859, the last year of which I can gain any return, 200,000*l.* worth of pearls were obtained. Year by year large quantities are exported, principally from the little town of Lingah to Bombay and thence to Europe—France, it is said, being the largest purchaser of these jewels. As might be expected, all stories referring to the pearl-divers making long stay under water are quite false, the best divers cannot remain more than 100 seconds below the water, and the average stay is about 60 seconds. Bahrein is also a great market for pearl sales.

It may be interesting to notice that the phenomenon of fresh water springs existing in the ocean and referred to at various times by our poets is seen on the Arabian shore of the Gulf, near Bahrein, and by passing a hollow tube down into the spring through the sea water, perfectly fresh water may be obtained. This fact is vouched for by the officers of Her Majesty's Navy engaged in the coast survey along these seas.

Bandar Abbas.

I entered the Persian Gulf between Ormuz and Cape Mussendom. One passes along the island of Ormuz in going to the first town of any importance met with inside the Gulf districts, viz., Bandar-Abbas.

Of Ormuz it is sufficient to note that this dreary and waterless sand-covered rock was 250 years ago the great emporium of Gulf trade, and was held by the Portuguese. The description written by ancient mariners of this place shews to what extraordinary lengths the Portuguese went to secure their personal comfort while living there. In those days its name was synonymous with enormous wealth, and Milton treats it in this way in "Paradise Lost." Moore likewise mentions the place, and Marco Polo gives a capital idea of its heat by stating that the residents in the hot season were often compelled to spend the entire heat of the day in the water. Passing by Ormuz one reaches the town and little port of Bandar-Abbas, anciently called Gomberoon, and in days now long passed by an English trading depôt; but the glory is now departed, and little trade remains.

No English official resides here, but it is the port whence any expedition or traveller for the cities of Kerman, Yezd, or Lars would start, and is therefore not unimportant. To these places caravans carrying goods start at frequent intervals, and the roads thither are bad and difficult.

Bandar-Abbas.—(*a*). Latitude, 27° 30′ N.; longitude, 56° E. It is situated immediately within the entrance of the Gulf, and in case of an Euphrates Valley railway would doubtless be utilized as a depôt.

(*b.*) *Population* 6,000, principally Arabs from the opposite shore, and Persians. Most of the trade is in the hands of Hindoo merchants and Arabs. The language spoken is Arabic and Persian.

(*c.*) *History.*—As the port of Kerman, Yezd, and Lars, doubtless this place has always been important, and in the old days of Persian efficiency was an important place. The Portuguese, the Dutch, and the English have at various times held it, and in the old days, when war never terminated on the Indian side of the Cape of Good Hope, many fights occurred near it. To-day it is a poor petty place.

(*d.*) *Religion.*—Mahometanism of the *Shiah* and *Sooni* sects. The Persians follow the first form, and the Arabs the second.

(*e.*) Under Persian rule, but the authority of the central Government is quite nominal. The proverb that "*It is a far cry to Loch Awe*" applies here very fitly.

(*f.*) *Military authority* merged in the civil; no armed force apparent.

(*g.*) *Form of Government.*—Despotism by a Governor, who "squeezes" the people as far as he can.

(*h.*) *Commerce.*—Tobacco is exported, and English piece-goods are bought for sale in the interior.

(*i.*) *Food Supplies.*—Deficient in quantity, and bad] in quality. All food supplies would have to be carried here from India. Water deficient in quantity. Condensers or Abyssinian tube pumps would be needed.

(*j.*) *Climate* detestable, *vide* General Gulf Statement of Climate, *ante.* The only European there—an agent of the Steam Packet Company—says "It is the hottest place in the world," and he is probably right. It is very safe, however, from cholera, which ravages places quite near to it.

(*k.*) *Dress for Europeans.*—White cotton, as in India, with flannel underclothing. During December, January, and February, serge clothing.

(*l.*) *Diseases.*—*Vide* General Statement, *ante.* Remittent fever very inveterate when it once attacks a man.

(*m.*) Little accommodation for troops. Camps or huts would be needed. Here is a large ruinous building, once the English Residency, in the middle of the town; it might be utilized. A hospital ship would not do, owing to the rolling surf.

Lingah.

The next town to visit on the Persian shore is Lingah, 105 miles from Bandar-Abbas north-west direction, and higher up the coast, coming in from the entrance to the Gulf. It is a flourishing and important trading depôt. In sailing towards it from Bandar-Abbas, I coasted along the shores of the island of Kishm, or *Jeziret-el-Tawilah*, an island some 60 miles long, having at one extremity the ancient Portuguese port of Kishm, now ruinous and abandoned, and at the opposite or northerly end the old Indian navy station of Basiduh or Bassadore, where hospitals and buildings exist. It is now used principally as a coal depôt for the Government vessels of the Gulf.

Kishm, above-mentioned, is interesting to our race by the fact that in front of its now ruined walls there fell in 1622, Baffin, the daring Arctic navigator, who was killed while assaulting the Portuguese fortress here. Around these seas, in those adventurous days constant combats took place between Portuguese, Dutch, and English, and it is true that every headland along these shores is surmounted by the ruined remains of petty fortalices built from time to time by these nations.

To-day English influence is paramount in the Gulf, and indeed no other flag is ever seen there. Within the memory of men now living this portion of the Gulf was once the haunt of the *Joasmi* pirates, who had strong settlements on the opposite shore, and who were only suppressed after frequent, and indeed disastrous, expeditions against them by our Indian forces. To-day piracy, as an institution, does not exist in Gulf waters. Along the narrow strait that separates the island of Kishm from the Persian mainland, the principal supplies of firewood for the Gulf are obtained. Wood is a rare commodity in these parts.

(*a.*) Lingah, once the haunt of the Gulf pirates, but now an honest and flourishing little town, stands in latitude 26° 30′ N., and longitude 55° E. On the seashore of the Persian mainland, clean and well built, it is a flourishing place, and possesses a large fleet of boats employed in the pearl fisheries. There is a little breakwater and harbour, and many boats are built here.

(*b.*) *Population*, 8,000 to 10,000, principally Persians and Arabs, with some Hindoo merchants from the Indian country.

(*c.*) *History.*—Here, in ancient times, the Gulf pirates had an organized possession, but in various expeditions in 1805, 1815, and 1821, they were suppressed by the English power, and are now respectable people.

(*d.*) *Religion*—Mahometanism.

(*e*), (*f*), (*g.*) *Civil and Military Authority.*—Merged in a Governor under the Shah of Persia.

(*h*) *Commerce.*—Increasing. Rice and ghee from India are exchanged for pearls from the Gulf waters. Lingah is a great depôt for the sale of these gems, and many of the Arab merchants are very wealthy who deal in them. A large portion of the carrying trade of the Gulf is in the hands of the residents, and many *buggalahs* or *dhows*—Arab sailing-vessels—are built here. English piece-goods are purchased here.

(*i.*) *Food Supplies.*—None. Water stored in reservoirs, and obtained from a few wells.

(*j*), (*k*), (*l.*) *Climate, Dress, and Diseases.*—As at Bandar-Abbas, Lingah is very liable to cholera epidemics, and many hundred people are carried off at times by it.

hrein. On the opposite shore of the Gulf on the Arab side are the important group of islands called *Bahrein*, under British protection. The principal island gives the name to the group. It is 27 miles long by 10 miles broad. It is described as verdant, fertile, and by far the most agreeable place in the Gulf. It is the great centre of the pearl fishery, many hundred boats being employed here, and pearls to the value of 200,000*l.*, per annum obtained. I did not visit Bahrein myself, and am unable to record, as in other cases, any personal observations.

shire. From Lingah, I visited next the town of Bushire, the principal town on the shores of the Gulf. It is 315 miles from Lingah, further up along the coast towards the head of the Gulf. It is about 1,800 miles by coasting steamer from Bombay, and might be reached in 9 or 10 days.

(*a.*) *Situation.*—Bushire is situated in latitude 29° N. and longitude 51° E. Its name is derived from a Persian word signifying *the father of cities.* It stands on a long spit of sand jutting out from the Persian mainland into the waters of the Gulf, and it is important, as well from its own size as from the fact that it is the southern outlet of the Persian kingdom, and the place from whence the routes to Shiraz, Ispahan, and Teheran start. The anchorage is bad, as vessels must lie some three miles off the shore, and all goods and men landed in boats.

The road, or rather, according to our ideas, the track leading to Teheran begins at this town and crossing the *Kotuls*, or high hills, 5,000 feet in elevation, reaches Shiraz at 120 miles, and thence, by a better track, Ispahan, distant from Shiraz 218 miles, and thence to Teheran, 215 miles. From Teheran one can reach the Caspian Sea in three days' riding, and from the Caspian London may be reached in 20 days, either *viâ* Astrakhan, the Volga, Moscow, and St. Petersburgh, or by leaving the Caspian at Baku and proceeding, *viâ* Tiflis, to Pote, on the Black Sea. This route leads through the Caucasus.

(*b.*) *Population* 12,000, mostly Persians, with some Arabs.

(*c.*) Bushire has, doubtless, been from immemorial time the site of a city and a port. Its situation on the shore of the Gulf, and its being the route to ancient Persepolis and the capital of the ancient Persian empire, must have made it an important place in the days when the Gulf was filled with vessels bearing the products of India and Babylon over its waters.

In the immediate vicinity of the town bricks, bearing inscriptions similar to those at Babylon, have been discovered, and it is impossible that such a site could have been overlooked in olden times.

Owing to the outbreak of war between Persia and England in 1856, an expedition from India landed at Halilah Bay, four miles from Bushire, in that year, and, after the battle of Reshire, the town fell into our hands. Little further was done, as all advance of heavy trains into the interior is impossible owing to the mountains that have to be crossed on the road to Shiraz. The route to enter Persia from the Gulf side, available for an army train, is further up the Gulf, at Mohammerah, on the Shatt-el-Arab, by the valley of the Kerah river.

(*d.*) *Religion.*—Mahometanism. It may here be noted that the Persians belong to the Shiah sect of this creed. It is to be remembered that two principal schools of thought exist within the Islam creed. One is called the *Sooni* and the other the *Shiah.* The former school, which includes the Arabs and the Turks, are liberal-minded *Broadchurch* men, looking more to the spirit than to the letter, eating freely with Christians, and little, if at all, jealous of European intercourse. They seem to resemble more the protesting sections of the Christian creed. They do not pray to Mahomet, or give him any Divine honours. They are liberal, and more or less rationalists in their interpretation of the Koran. The *Shiahs*, who are principally Persians, are the reverse of all this, and resemble in their views the ultramontane party in the Christian creeds. They are jealous of Europeans, that is Christian interference, will not eat with them, nor allow them to drink from their vessels. They have a kind of priesthood, a thing the *Sooni* section utterly abhor, for in true Mahometanism no priesthood should exist. They pray to Ali the son-in-law of Mahomet for intercession to the Creator, and indeed in some ultra sections pay that personage almost divine honors. All progress that can take place under Mahometan creeds will take place under *Sooni* leading. *Shiah* action is wholy ultramontane and reactionary.

(*e*), (*f*), (*g.*) The town of Bushire and the adjacent province is under the rule of a prince-governor, generally the connexion, often the brother of the Shah. In him *military and civil authority* centres, but terrible irregularities occur, and law is merely a name. The military force in Bushire consists of a battalion of some 500 men, physically good enough, but badly organised, and never paid. The system of peculation extends throughout the entire government service and the private *serbaz* or soldier generally fares badly.

In the hands of European officers these strong fine looking men might be made something of. The Government of India have a resident at Bushire. He is the Agent of the Government, and acts as Envoy with the Local Persian Administration. It is an office of much influence, and has been held by many well-known men.

(*h.*) *Commerce.*—There is considerable trade with India from this place. English piece goods being imported, and tobacco and horses being exported. The horses are much crossed with Arab blood, but cannot compare in beauty with those lively creatures. They fetch a lower price in the market, and are not nearly so highly valued. There are several European merchants at Bushire who carry on a trade with Shiraz and the interior. A wine is made at Shiraz which has inspired the songs of many Persian poets, but it is not palatable as a rule to English tastes.

(*i.*) *Food Supplies.*—Are far from being abundant, and local supplies could not in any way be trusted to. Everything should be brought from India. Fish in some quantity can be obtained off the town.

(*j and k.*) *Vide* general statement of the Gulf with reference to climate and dress.

(*l.*) *Diseases.*—Remittent fever of a bad type is common. Dysentery is common. Cholera rages from time to time. Ophthalmia is common.

(*m.*) Encampments could be made on the open spaces without the walls of the town. Water would be a difficulty, as the town is on a narrow spit of sand, and wells few and brackish. Accommodation for sick may be obtained in some buildings of the town, but it would probably be better to trust to encampments, unless during the hottest season, and then any building on the sea-front might be made available. The English residency is probably the best house in the place, it faces the sea and is cool.

Kowet. Leaving Bushire and still heading towards the upper portions of the gulf, we are gradually drawing near to its northern extremity. We sailed from Bushire for Kowet on the Arab shore. At 31 miles north and west of Bushire is the island of *Karak* or *Karrack*, an island four miles long by three broad, containing many wells of water, and a good plain in the centre, with date trees and cultivation. It commands the northern waters of the gulf, and has been occupied by our troops, once in 1839, during the Cabul War, and again in 1856, during the Persian War. If ever the Euphrates Valley Railway be constructed under English auspices, doubtless, this island will be occupied as a depôt for coal, &c. We can occupy it at any time we choose.

Kowet often, but quite wrongly, called Grave, is a flourishing Arab town stationed on the verge of the desert of Arabia, having in front of it the sea, and behind it the desert. It is a thriving place, and will one day, it is said, be the gulf terminus of the Euphrates Valley Railway, running from Iskanderoon on the Mediterranean to this place.

(*a.*) Lat. 29° 10′ north, long. 48° east. It is situated near the head of the Persian Gulf, and close to the *embouchure* of the united streams of the Tigris and Euphrates.

(*b.*) *Population* 25,000. Race pure Arab, that is Semitic. There are perhaps 50 Jews in the place. It is a great depôt for the Bedouin Arabs to come and buy supplies, and large encampments are to be generally found in its immediate neighbourhood.

(*c.*) *The History* is not of general interest.

(*d.*) *Religion*, Sooni Mahometanism.

(*e, f, g.*) *Governed* by a Sheikh or Patriarch, who owns a nominal obedience to the Ottoman Empire, through its representative the Viceroy of Irak-Arabi at Bagdad. Placed as the town is within easy distance of the Turkish forces at Bassorah, the Sheikh and his people long wavered between an English and a Turkish alliance, but has now decided in favour of the Turks.

(*h.*) *Commerce.*—The commerce is considerable, and the inhabitants are good sailors and manufacturers. There is a large carrying trade in the hands of the residents of Kowet. It is from this port that many of the Arab horses imported into India are shipped, although Bassorah is a greater depôt. Dealers go round to the various Arab encampments and pick up the likely young horses, and bringing them into the ports, ship to Bombay often as many as 100 in a single steamer.

Kowet is celebrated for the manufacture of those beautiful silk *kefiyas* or kerchiefs used as a head covering by every section of the Arab community, and many beautifully striped patterns are produced at this place.

(*i.*) The local *food supplies* are unimportant, and the principal food materials are imported.

(*j and k.*) White clothing would be worn here from March until November, and serge clothing during the remainder of the year. In the winter a particular cold and cutting wind blows from off the desert, which lies immediately behind the town.

(*l.*) Ophthalmia is prevalent.

(*m.*) No accommodation for troops, sick or healthy, exists in the town. Camps would be required to be pitched, and water supply would be difficult and precarious. Condensers would have to be fallen back upon.

Shatt-el-Araq. Leaving Kowet we now turned our course to the *embouchure* of the *Shatt-el-Arab* as the united stream of the rivers Euphrates and Tigris is termed, and passing the difficult entrance or estuary of the river, which is constantly being silted up by the alluvial deposits from the river waters, we entered the fine stream of the *Shatt-el-Arab*, or River of the Arabs. This conjoined stream is 120 miles long from its formation at Koornah, 50 miles above Bassorah to its falling into the sea. It is from its formation a wide and noble stream, and once the bar be passed large frigates can safely ride on its waters. We pushed up the stream and passed Fao, the first Turkish post on the river, a little telegraph and customs station held by a few soldiers.

It is 150 miles from Bushire to Fao, not calling in at Kowet.

Fao is 50 miles below Bassorah, and about 30 miles from the mouth of the river. The country along the river side is low and marshy, and liable annually to be flooded by the rise of the river when the snow is melting on the mountains in Armenia.

The little place is ruined by the prevalence of fever and ague, and the men stationed here have to be changed constantly, so malarious is the place. We steamed on past Fao, heading up the noble stream for Bassorah. The colour of the river water shewed how highly charged it is with alluvium, and even a tumbler full left a considerable deposit on its being allowed to stand. The water, however, is very sweet and drinkable. On either hand as we approach Bassorah, grow thicker and thicker those far-famed date gardens, whose reputation is famous all over the East. The tall and stately tree grows with its feet bathed by the waters of the river, and the warm sun, rich alluvial soil, and abundant water supply seemed to make the place the very finest spot for any kind of agriculture. But under the Turkish rule nothing can flourish.

Bassorah.

Bassorah.—We gradually drew near to Bassorah—a famous and historic city in the olden days, but now sadly dilapidated. It is the extreme southerly and easterly garrison of the Ottoman Empire, and occupies a very important site, commanding the passage of the valleys of both the Tigris and Euphrates Rivers.

(*a.*) Bassorah is situated in lat. 30° 30′ north, and long. 47° 34′ east on the banks of the Shatt-el-Arab, or conjoined streams of the Euphrates and Tigris, and is principally built on a little creek running inland from the river.

The town is in a tumble-down and decayed condition, and is, indeed, a mere relic of its former greatness. A weak and ruined mud wall, with bastions at intervals surrounds the town, but is not kept in any repair. Very many canals and date gardens surround the town, and the soil is of extraordinary fertility.

Thousands of little canals admit the waters of the river into the gardens, and the luxuriance they reach is well known. The mosques and public buildings are poor and unworthy of notice, and there is no sign of life about the place. It is a pity, for a finer site for a city, if the country was in the hands of a just government, could hardly be found.

(*b.*) *Population.*—70,000—Arabs, Persians, Armenians, and Turks. In the streets of the town one meets every race of men from India to Africa, and all the notices and public announcements are in three langauges—Arabic, Persian, and Turkish. The latter—Mongolian tongue, the language of the ruling race—is only understood by the few really Turkish people in the place—viz., the officials and the superior officers.

(*c.*) *Religion.*—Mahometanism of the Sooni denomination. There are in this city to be found several congregations of Syrian or Jacobite Christians, also Armenian Christians, and a few of the Latin Christians, many Jews are also to be found here.

(*d.*) *History.*—Bassorah must have always—since Babylonia became a centre of population—been a place of much importance, and the emporium of trade with India and the further east. In the early days of the Mahometan rising in the 6th century the Caliph Omar removed the city to a new site, and it seems in these stirring days to have risen to remarkable degree of importance; but with the removal of the Caliphate to Constantinople, and the decadence of Turkish power, it is now a sad remains of its old splendour. The English had a trading factory here until 1820, and before then the Dutch occupied a part of the town as their depôt.

(*e, f, g.*) *The Government* is in the hands of a Turkish Pasha who is at the head of the civil and military power. Courts of law exist, and the semblance of justice and order is maintained, but it is likely—nay, true—that here at the remotest corner of the empire much oppression is practised, and there is practically no limit to what may be committed in the name of law.

There is a garrison here of 2,000 men. They were the first Turkish soldiers I met with, and my impression of them was wholly favourable—stout, hardy, active men, remarkably well-built, and seemingly good humoured easily managed fellows. They were well and sensibly dressed in a costume like the French Zouaves, and were well armed with Enfield rifles; they seemed well-fed. Of the Turkish soldiers I will say more further on at Bagdad.

(*h.*) *Commerce.*—There is much trade with India—*viâ* the Persian Gulf, and in return supplies of English goods and Indian food materials are imported for the Euphrates and Tigris Valleys. Bassorah is a great centre for the exportation of the Arab horses, so much thought of in India; they are purchased from the desert clans by dealers, and brought into this port for shipment to India. As is well known the Arab mare is never exported. There is also a large trade in the far-famed Bassorah dates, which command very high prices in the markets of Europe. The river being navigable by steamers, and even frigates of 40 guns as far as this place, is a great accommodation to shippers; there is also much trade in wool from the Desert flocks.

(*i.*) *Food Supplies* are fairly abundant, and the country around Bassorah is so fertile that, with proper care and irrigation, it would become a smiling garden.

(*j.*) *The Climate* is in the summer very hot and enervating with a damp heat, and in the winter a piercing cold wind blows off the Desert; rainfall is inconsiderable.

(*k.*) Troops serving here could wear white drill clothing from February until November, and during November, December, and January, the serge clothing would be suitable, the Indian helmet would be required all the year round.

(*l.*) *Diseases.*—The town and neighbourhood of Bassorah is decimated by malarious diseases, such as ague and remittent fever; all the European and even the Turkish forces containing many locally-born men are attacked with it. It arises principally from the flooding of the adjacent country by the swelling of the river in the beginning of the summer. Every man in Bassorah has ague. The plague in the old days—40 years ago—played terrible havoc here, but since 1832 has not been seen. At various times during the latter end of the last century and the beginning of the present at least 100,000 persons perished from this cause. Cholera has several times attacked the place, and the entrance of many pilgrims going to the holy cities of Eastern Arabia, and bearing with them the dead bodies of their relatives for burial in the holy ground, has been alleged as a promoting cause. The Bagdad or Aleppo boil has marked many people here.

(*m.*) Good accommodation for European troops could be obtained by clearing out and cleansing the barracks of the Turkish troops. Buildings suitable for hospitals could be utilized from these same barracks.

The Tigris Valley.

Leaving Bassorah, I proceed, amidst a crowd of Persian pilgrims, towards Bagdad by the Shatt-el-Arab, as far as the junction of the two rivers at Goornah, and from that point by the Tigris. The *Shatt-el-Arab* is 120 miles in length from its formation until it reaches the sea.

It commences at Koornah, 50 miles above Bassorah, where the Euphrates and Tigris join. As I pass up the stream—muddy and dark-coloured from the quantity of suspended alluvium in it—I note on either side the natural features of the country. Dead level plains—flat as a billiard-table—spread out on either hand, and seem as though a rise of a few feet of the river would swamp them all.

Along the river side the graceful date droops its head, rich with fruit, and at its feet is cultivation for a few yards from the river's bank, but within and quite in sight spreads the Desert in all its terrible desolation. As we move further away from Bassorah cultivation ceases, and the Desert literally runs down to the banks of the river. Natur hase bountifully placed the means of turning these wide-spreading plains intc noble gardens close at hand, but anarchy and misrule, throughout long ears, have destroyed all vestige of population. Now and then one passes the dark brown tents of the Arab clans who, at certain seasons, when the land within is more than usually unbearable, come down towards the river-side to feed their flocks. More savage and brutalized human beings one cannot imagine than these lower Bedouin Arabs. Vagabonds and wanderers for thousands of years, they live to-day as they lived in the far-off past, and civilization passes them by without touching them.

Flocks of pelican flit close above the muddy waters of the river; herds of gazelle, cropping the scant herbage of the Desert, are now and then in sight; very frequently the wild boar is seen close by; and in years not now forgotten, nay, even to-day, the lion is seen roaming over the plains. Thus, passing up the 50 miles of the wide and noble Shatt-el-Arab, we reached Koornah, the junction or *confluentes* of the Tigris and Euphrates.

At this spot, Koornah, the two rivers join, and, tracing them backward towards their origin and source, we find them rising not far distant from each other in the Kurdish mountains. Thence the Tigris flows down to the Gulf in a very straight south-easterly direction, while the Euphrates makes a bold sweep outwards towards the west and south, and then wheeling round, runs south and east, and joins the Tigris, as before-mentioned.

Between these two rivers lies the *Meso-potamos*—or Mesopotamia, or *Shinar*, or Chaldea, or Babylonia—of ancient history, and the Irak–Arabi of our time. As is well known, the spot of junction at Koornah is the reputed situation of the Garden of Eden, the Paradise of the Hebrew Scriptures, and, doubtless, to the Hebrews, coming from the burnt-up lands of Palestine in the days of their captivity, this spot which even to-day, in the midst of neglect and desolation, is green and verdant from a large river on either bank of it, and, in their captive days a thousand times fairer and more beautiful from the splendid cultivation of the Assyrians, must have seemed a favourable place to locate the cradle of the race and the happy ideal garden, free from sorrow, where men might dwell without trouble and care.

Further, in a creed of Nature worship, such as the ancient Assyrian faith seems to have been, the meeting place of two noble streams, the fertilizers of their land, and the dispenser of all good things, must have been a site of particular sanctity, and this would also lead the place to be much honoured in the eyes of a credulous race like the ancient Hebrews.

Alas for the past! To-day the happy garden is the post of some Turkish soldiers; around the base of the reputed tree of knowledge, which is still shewn to travellers, useful vegetables grow, and high up above the garden I noticed in mid-air the telegraph wire, running from Bagdad towards Bassorah. The red flag, bearing the crescent of Turkey, flew from an official building, and Eden had evidently become thoroughly secularized.

The Tigris is now to be entered, and we turn towards the right, and head north and west up its rapid waters. This fleet-flowing river, called by the natives the arrow-like river, or *Dijilè*, as well from its generally straight course, as from its very rapid and powerful stream, rushes down to the sea from the Kurdish mountains, and, after passing by Diarbekir, Mosul (the ancient Nineveh), and Bagdad, falls, after a course of 1,146 miles, into the Shatt-el-Arab at this place.

This splendid stream carries down an immense body of water to the sea, and it is slowly and with difficulty even a steamer can make way against it.

It was by diverting these rushing waters by canals and channels through the level plains of Babylonia or Chaldea, that these countries produced those magnificent harvests we read of in ancient writers which seem almost romantic and beyond belief; and yet to-day, in our own times, all the splendid history of the past might be revived, and harvests equally fine produced, but the law, the settled order, and the good government which produce progress have been absent for a thousand years, and hence the so-called desert exists where once an unending garden smiled. The river is 200 yards wide at its junction, and is navigable for rafts and timber to Diarbekir, and for steamers of shallow draught as far as Bagdad. It is liable to an annual rise in April and May, from the melting of the snow in the Kurdish mountains.

The Desert.

Four hundred miles of this rapidly flowing river intervene between Bassorah and Bagdad, and the entire distance between the places may be described in general terms as—mile after mile it is intensely the same. The noble river runs throughout this long distance between a terrible desert. From the time one passes Koornah (Eden?) and leaves behind the date gardens of that fertile spot, desolation is the only thing seen.

Far and wide on either hand spreads the level plains of the desert, a weary waste of burnt up clay, yet beneath every foot of ground lie the remains of cities and peoples who have passed away.

Sailing up the stream in its N.W. direction, on the eastern bank lies the desert of *Irak-Ajami* or Persian Irak, running from the banks of the Tigris to the Hamrin range of the Laristan Mountains, a ridge of Tertiary formation which serves as a rude guide to that debateable boundary that runs between the Persian and the Turkish possessions, and is ever the source of quarrel and dissension. Over this desert the clans of the Beni-Ahmed Arabs wander, gathering forage for their flocks on the slopes of the hills of Hamrin, and by the waters of the Tigris, and not averse, it is said, to sally over the Persian boundary and harry the cattle flocks of those over the border.

On the western side of the river stretches the desert of Mesopotamia, or, as it is better known, of Babylonia—or Chaldea or Shinar. This wide spreading plain, now the haunt of the gazelle and the wretched wandering-ground of the

Bedouin Arab, was once the most fertile spot on the earth. It is impossible to exaggerate its ancient fertility. The ancient writers all agree that such was the agricultural skill and mechanical genius of the ancient Babylonian race, and such the natural good qualities of the soil and water, that the harvests that covered these wide plains of clay were splendid beyond conception.

The corn grew like a forest, and every fruit and tree in proportion. The great revenues derived by the rulers from this space between the two rivers enabled them to live in unexampled luxury, and to construct those magnificent cities whose ruins to-day stud the plains, and even in their utter decay command attention. One may here remark that all preconceived ideas of a desert are rudely shaken on seeing the reality. It is not sand as often imagined. The desert of Mesopotamia is simply hard-baked clay, baked by the exposure without rainfall or water contact to the fierce rays of a burning sun, but still needing water only to burst into amazing fertility. The wretched Bedouin who to-day scratches the soil by the river side and throws some corn upon it is rewarded, for what cannot be called his labour, by an abundant crop. And to imagine what the land might become under English rule, Anglo-Indian administration, and Indian emigration it is impossible to say, but doubtless it would be wonderful.

In the course of ages of misrule the population with the cultivation has disappeared, and if it were possible to bring here our surplus Indian population and English ideas, and capital to let the river run once more by canals through the plains, the land would again burst into life, but under Turkish rule and Arab lawlessness what can ever be done?

The river runs now as in the past a stream of gold through the midst of the thirsty wilderness; and warfare, anarchy, and squalor, revel along the shore. Mile after mile for hundreds of miles spreads the waste of weary plain, and ever and anon great mounds rising from the level sea of clay mark the site of a city whose very name is forgotten, and where the gazelle crops the miserable vegetation, every fruit and flower once bloomed in perfection. In this once garden-like land grew up these cities, whose luxury and magnificence are in our days the measure of splendour, and which can never again be rivalled in the world. Here under the fostering care of despotic but enlightened rulers, every science and art flourished in perfection. Agriculture must have reached its very highest pitch, for Babylonia was simply a garden many thousand square miles in extent. Mechanical science must have been in the highest estimation. Hydraulic agency was known and estimated. Textile fabrics of splendid design and delicate texture were produced. Cities of immense extent in singularly suitable places sprung up in every direction. Sculpture and painting were practised. Astronomy fostered by superstition, and free to be studied under the clear skies of the wide-spreading Chaldean plains, made a definite commencement, and these ancient Babylonian astrologers, aided only by the unassisted eye, foretold the eclipse and named the planet, and laid the foundation stone for all that knowledge of the heavens we now possess. The art of architecture grew to a fantastic, nay, even a monstrous perfection that it has never reached in other countries. The decorative arts were here found in full vigour, and the designers of London and Paris will find in the earth-hidden walls of ruined Babylonian palaces new conceptions and ideas that are in truth of immense age.

Philosophy and science, and religious creeds here assumed a shape and a definiteness that has left its mark on our race for ever, and it is quite impossible to draw the line and say how far Assyrian legends and Chaldean folk-lore influence our western views to-day, for it is impossible to say how much Judaism drew upon these men, their allied race, for every virtual and every philosophic theory their creed possesses. The Jew and the Assyrian were hopelessly allied, and the more Assyria and Egypt are studied the more we shall find how much the Hebrew race, and through them Western Europe, owe to their brothers of Assyria.

Every conception and thought that now exist in the human heart existed then, and in this Euphrates valley in the past every form of hope and fear we now undergo was felt by them too.

Their empire rose to a strikingly powerful height. They carried their armies victoriously through every surrounding people, and, doubtless, the captivity of the Hebrews was but one of the captivities which brought subject races into the land.

But if they reached a high pitch of civilization, with that boon came the elements of decay.

The vigorous and active rulers who first laid the foundation of an empire by the banks of the Euphrates, or carried their soldiers victoriously through every adjacent land, were in the course of centuries succeeded by rulers whose depth of sensual enjoyment is to-day the standard we use as a comparison, and the vigorous peasantry who first let in the waters of the river to flood their fields gave way gradually to an effeminate and debauched race which melted away before the Mede and the Persian, till they too, the mountain conquerors, lapsed into like enjoyments to fall before the Greek. And here in this luxurious land the Greek of the west forgot his nature and became more luxurious and more intellectually debauched than even the races he conquered, and he too gave way to the Roman, whose soldiers founded new cities in these plains, and all were at length swept away by the fierce flood of Mahometan religious ardour, and all the splendour and magnificence of Ctesiphon and Seleucia failed to overawe the Arab zealot who came in the name of God and the Prophet to purge the earth. They came, they conquered, they set up their Caliphate at Bagdad, became strong, great, luxurious, and effeminate, and where are they to-day? No vestige except a wretched village, here and there, long leagues apart, shews the remains of the conqueror.

The land, as good and as fertile as of old, is still there; the river, as full of wealth and riches as ever, still runs by the old fields; but the race is wanting to utilize them, and a new people are called for to use the old gifts. We have in India a surplus and ever increasing population; we have men able to organize and to govern; and it would be fine scope for them to colonize this land with a people who could use it.

We pass on up the stream, past mounds and deserts, past Turkish outposts and Arab camps; but one field of corn, or one blade of grass, we never see.

Along the river banks are found the tombs of many men famous in the Mahometan and in Hebrew religious systems; among others is the tomb of the Hebrew teacher Ezra, which stands on the river's bank some thirty miles above Koornah, and is very much visited as a place of pilgrimage by the Jewish women of Bagdad. I visited the tomb, which is plain, simple, and devoid of gaudy ornament. The teacher sleeps within in a stone-covered vault.

At various intervals along the river the Turkish troops are quartered; they try and keep the river open against the Arabs, who, however, now and then descend and rob some vessels, *en route.*

As we drew near Bagdad—within about twelve miles of it—we passed the ruins of the ancient cities of Ctesiphon and Seleucia. In the former city was once the seat of government of the Sassanidæ dynasty, overthrown in 7th century by the Mahometan uprising. The ruins of the ancient banqueting house of the kings is still, after eleven centuries, a splendid landmark for miles over the plains, and the noble arch that covers in the hall is well worth inspection. Gradually, as we drew near Bagdad, cultivation increased, that is, within five or six miles of the place, and great numbers of date-palms likewise grew along the water's edge, the first seen since leaving Koornah.

Bagdad.—Bagdad, the capital of the Pachalic, and the successor in position to the ancient Babylon, stands on both banks of the Tigris, in lat. 33° 20′ N., and long. 44° 23′ E. The main portion of the city occupies the eastern bank. Bagdad.

The site is very fine, commanding in a strategic point of view, the centre of Mesopotamia, and lying in front of the main passes into Persia. *viâ* Khanakin. It is a walled town with bastions at the angles, but the walls are now in a tumble-down condition, and will soon disappear. The entire place is built of bricks, many of them coming from the adjacent ruins of Ctesiphon, for—as in all Mesopotamia—there is no stone, the ancient bricks, manufactured by the Babylonian kings, are still used as a building material. Babylon itself is in this way an enormous brick quarry. The streets are narrow, winding, and confined. The mosques, many of them the remains of bygone splendour under the caliphs, are fine handsome domed structures, with light and graceful minarets. The bazaars or markets are very good, being covered-in according to the custom of the country, and are constantly thronged with purchasers.

During the pilgrim season especially the place is very full of people, who, to the number of 100,000 per annum, visit the shrines in Eastern Arabia. The shrine of Kathernain, sacred to a Shiah Mahometan sage, attracts many pilgrims. A bridge of boats connects either side of the city; and on the western bank, among other interesting monuments, is that of Zobeida, the celebrated wife of Harun-al-Raschid (Aaron the merciful), the illustrious Caliph who, in the 9th century, improved the city universally, and founded colleges and schools long well-known in Asia.

(*b.*) *Population.*—90,000 to 100,000. It is very difficult to obtain correct returns according to the actual population, owing to the false statements made to avoid the conscription and the poll-tax. Few cities in the world contain a more varied collection of inhabitants. We see daily in the streets, Arabs, Turks, Persians, Koords, Armenians, Indians, and Jews. The Turks are of course the ruling race. Tartar men of Mongolian origin—but save the fair complexion, few features of the Tartar now remain, owing to their very constant intermarriages with the handsomest women of the Georgian or local races. They are principally the government officials, for, since the 7th and 8th century, the Mongolian Turks, originally the mercenaries of the Caliphate, have eventually become its masters, and the title "Ottoman" is really a Tartar title. The Turkish language is of Turanian origin, and here in Bagdad I recognized words which I first heard at Leh, in Ladaka, in Little Tibet.

The Arab population, when dwelling in the town, are generally poor and debased. Many of the Arab chiefs who live around Bagdad are dignified and well-bred gentlemen, true and honourable, with whom it is a pleasure to do business. The Persian element is numerous, and consists of writers and petty officials, and many of the labourers are of Persian origin. All government notices are issued in trilingual characters—Arabic, Persian, and Turkish; and this seems to have been the rule, even in the far-distant days, in this country.

(*c.*) *History.*—Bagdad was founded in the year A.D. 762, Almanzar the Abbasside caliph, and remained the seat of the caliphate until the 14th century, when it was removed to Constantinople and still remains. Harun-al-Raschid enlarged it very much in the 9th century. The Turks ravaged it in the 10th Century, and Hulaku in A.D. 1253, and Timur in A.D. 1393, committed frightful atrocities here. The Persians held it for a short time, but since 1638 it has been permanently in the hands of the Turks. In the early days of the caliphate the schools of physic, law, science and astronomy at this city were very famous.

(*d.*) *Religion.*—The creeds found at Bagdad are as numerous as the races, and include Mahometanism of both Sooni and Shiah sects, Jews, and some six or eight varying sects of Christians.

A great number of the Shiah Mahometans from Persia pass through Bagdad *en route* to *Kerbela* the burial-place of Husseim, and *Nejf* or Meshed Ali, the burial-place of Ali the mediator of the Shiah sects. These two historic characters fell in the early struggle of the Mahometan faith and are looked upon as martyrs by the Shiahs. Their tombs are in the cities above named, and lie on the confines of Eastern Arabia, near the shores of the Euphrates. Many of the mosques in Bagdad are very fine.

The Jews are 18,000 strong in Bagdad and occupy a very good social position, having never been subject to any oppression here for centuries, if indeed ever.

It will be remembered that on the return to Palestine of the Captivity only three tribes returned, the remainder being quite comfortably settled in the country with a race quite the same as themselves in origin and idea. It is therefore the fact that we find more real Jewish blood in Bagdad and the adjacent parts than anywhere else in the world. They live here in great comfort and engage in trade very largely. Sir David Sassom, the well-known Bombay merchant, is a Bagdadi Jew, and the whole race there are well off and comfortable. They can always get on where there is any merchandize to be dealt in or money to be made; and there is no reason why they should migrate to Jerusalem, since really the greater part of the race would not go back to it when they had the chance ages ago.

Doubtless, they knew that in a city like Jerusalem, with little or no commerce, they had no way of bettering themselves. It is important, then, to remember how likely all the Jewish writings are to be full of Babylonian and Assyrian theories, seeing that they are kindred races and lived in the same part of the country.

The Christian community are divided into many and various sects. Thus, we have Nestorian Christians, Chaldean Christians, Jacobite Christians, Armenian Christians, Latin Christians, and orthodox Armenian Christians.

It would be impossible, unless in a theological treatise, to describe their petty differences, but their squabbles and dissensions are the bye-word of the place. No Protestant Christian mission exists. All classes of them are ignorant and no credit to any faith.

(*e*, *f*, *g*.) Bagdad is the centre city of the large province of Turkish Arabia, extending from Mesue and beyond it to the sea, and from the Persian frontier to such distance westward into Arabia as the rifles of the Turkish troops can carry, but no further. To mention Turkish government ought to be enough; it has all the vices and few of the virtues of government; it is full of oppression and robbery; and, however well-meaning the Viceroy may be, in this place his subordinates are far from being so.

Further, the constant drain of money out of the province to Constantinople prevents any extensive public works being undertaken, and without these everything is at a standstill.

The want of a just system of land settlement that would induce the Arabs to settle, and the provision of canals for irrigation prevent any new land being brought into cultivation. Under English rule and administration this land would do well and afford a fine outlet for Indian emigration. Each district has its local governor, all of course subordinate to the Viceroy at Bagdad. The city has a form of municipal government, but it is only a form. The Jewish community, who organize themselves wonderfully well, keep their quarter in capital order by comparison.

Of the Turkish soldiers, through the civility of Raouf Pacha, the Mushir and Viceroy of Irak-Arabi, I saw a good deal, and all I saw pleased me. They were all fine, soldierly, active, hardy men; although smaller than the Sikh or the Pathan, they seemed to have more intelligence, and moved about the place with a quick and active step. Their clothes were sensible—loose, free, and natural. Their boots, always a weak point with Asiatic soldiery, were made of soft leather like Indian *sambhur* and foot-soreness was unknown amongst them. They were well-armed with Snider rifles, and their arms were clean and in good order. I had a parade for my edification, and they drilled rapidly and well; far more quickly than either European or native soldiers of our service.

Their rations were good in quality and sufficient in quantity; I tasted the bread—it was good and quite fit for any man. Their barracks were large, well-ventilated, deep varandahed buildings, far better than the poor huts in which our Indian Sepoys are lodged.

I visited the Military Hospital. It is true that it was taken by the military people from the townspeople who had built it, in an unwarrantable manner, but that does not matter. It was a good building, modern in style, and built for a hospital. Many of our hospitals could not compare with it. Entering past the guard we were all requested to remove our swords—a custom apparently in the Service, as all the officers, many of high rank, instantly complied. The chief medical officer, a very kind civil person, shewed us all over the place. He spoke French, and seemed to be an Armenian or a Greek. They have at Constantinople, I gathered, a school, where the medical officers of the army are trained. These officers have a very good position, and are called by their military titles, so that on first meeting them one does not know whether they belong to the Military or Medical Department of the Imperial Ottoman Army. I saw, in this visit to barracks and hospital, much to admire, and little to condemn. I saw that Turkey, dead in many other things, is at least alive in this, the least important part of her wants; and if the same zeal and intelligence were only given to her civil administration it would be better. Of the officers of the army it is not so easy to speak. Many of the young men are intelligent, educated people, anxious, they say, to redeem the position of the country, and really liberal in their ideas; but there is a strong reactionary element of old ignorant officers to whom the *status quo* is always the best. I met some young men, trained at the military school in Constantinople, who spoke French well, and seemed nice fellows. Thus far I speak favourably, but it is to be remembered that the army is never paid, and were it not that rations are issued in kind to all ranks, and clothes also, I do not know how it would end. But the food and clothing being given freely, the men are kept in good humour. The Bagdad garrison lead rather a hard life, as they are very often out in flying columns after that uncatchable foe, the Desert Arab.

The hatred between the Arab and Turkish races is very marked, being, despite a common creed, far more bitter than the hatred of the Indian Mussulmans against us in India. It is a race hatred of the Semitic and Mongolian race, and has lasted and will last for ages. I was cautioned in visiting the holy cities in Arabia that if I were insulted it would be because my European colour would make the Arabs think me a Turkish official. Doubtless the race-hatred has been aggravated by the misgovernment of the Turks during many centuries.

(*h.*) *Commerce*.—Considerable. Arab horses, costing 40*l.* to 50*l.*, are taken to Bombay and sell for 100*l.* to 120*l.* The best Arabs come from the Nejd country in the interior of Arabia, but they are rarely met with, and have their lineage as carefully traced—indeed more carefully—than the men who own them have theirs. The Arab mares, very wisely, are never exported. Since the opening of the Suez canal a direct trade with England in goods is said to be springing up.

(*i.*) *Food Supplies* are fairly abundant in Bagdad owing to there being good gardens in the neighbourhood of the city, but any considerable quantity of vegetable food would have to be brought from India. Potatoes now come from India. Mutton is procurable, but beef with some difficulty; but any quantity of animal food might in a short time be procured from the highlands on the Persian frontier beyond Khanakin, where abundant pasturage is found. The place is some 70 miles distant from Bagdad.

(*j.*) *Climate.*—The weather from November to March is pleasant and agreeable—indeed, often cold. Rain falls in January and February to the amount of 25 inches in 29 rainy days. The weather in April is getting very warm, and in May a fierce heat reigns. A hot wind blowing over the heated and unwatered desert burns up everything. During this time the residents who can afford the luxury, build up screens of camel-thorn, a prickly succulent plant growing in the desert, and these being well watered, and the heated wind allowed to blow through, a cool breeze is obtained.

June is very hot also, and if the wind veers and blows from the southward, it is enervating to a degree, as it is loaded with moisture from the Persian Gulf, and there is no evaporation from the skin while it lasts. During July and August—both of which are very hot months—the nights are cool, and as there is then no dew, every one sleeps on the flat house-tops, and it is very enjoyable.

The thermometer stands highest in August—107° F., and lowest in January; when it falls to 45° F.—ice and snow are rarely, if ever, seen.

(*k.*) *Clothing.*—The Indian helmet should be worn here the whole year round. The Turkish troops wear the fez as a cap at all times, and it seems very suitable. During the hot season if on field or exposed duty the officers often wear the Arab *kefiya* and *agal*, the former a thick kerchief thrown over the head and falling on the shoulders, and the latter bound round it like a turban.

The white cotton uniform, as in India, should be worn here during April and the ensuing months until September. The Indian serge clothing during the winter. Great coats would be required at night.

(*l.*) *Diseases.*—Sickness has ravaged Bagdad times without number.

The plague—the old terror of Egypt and Asia Minor—ravaged the city often in old days, and latterly in 1773, 1800, and 1832. In 1832, 60,000 persons died out of 150,000 in the city, and the city has never recovered the shock.

Cholera has ravaged Bagdad 13 times in 40 years, and in 1822 dispersed a large Persian force then besieging Bagdad. The great crowd (100,000) of pilgrims who annually come through Bagdad *en route* to the holy cities, and who in their long and fatiguing journey suffer much from heat and bad food, are said to bring the disease with them, and doubtless their weary, ill-fed state predisposes them to attack. They also carry with them on their pilgrimages the dead bodies of their friends and relatives, taking them for burial in the holy ground at Kerbela and Nejf. Many of these bodies are in a highly decomposed state, and their odour can be imagined. The majority of the bodies, however, are quite inodourous; they have been allowed to dry in the hot weather, and are then swathed with bandages, and in this stiff, rolled-up condition look like bales of goods. Many hundreds come through Bagdad annually, and I have myself at the various camps and halting places seen them lying in a heap like any thing but dead bodies. They are carried by twos and threes on camels.

In accordance with the decrees of the International Sanitary Commission, at Constantinople the Turkish authorities have quarantine depôts at Bassorah, at Khanakin and at Aden, where the pilgrims are supposed to be inspected; but doubtless, much swindling takes place and great slackness of duty. Indeed, it is a question if it is not better to let the people continue their marching than to pen them up in a quarantine camp where they suffer all kinds of persecutions.

One disease at Bagdad deserves especial mention, although it is never fatal but very distressing always. This is the *Bagdad Boil.* It is called the Date Boil, and the mark or cicatrix it leaves is called the Date mark.

It is known by the Arabic name of *Owkut*, and by the Turkish name of *Kulma Chebani.* It is said to resemble the Scinde and Delhi boil of India, and attacks men, women, and children, and it is said the very dogs suffer from it. Every European is attacked, as a rule, with hardly an exception, and the attack generally comes on within a year after residence commences Many of the Europeans I met had it, and some of the children were most seriously disfigured by its horrid scars. So common is it that in every man in the streets has the *seqnum diaboli* somewhere on his face, and in walking along the troops on parade every man had the mark as regularly as an English soldier would have his vaccination cicatrix. It begins first as a small pimple which bursts and becomes an ulcer and spreads slowly to the size of half-a-crown, remains open many mouths, secreting a thin discharge, and then heals up, leaving a frightfully deep and ugly cicatrix, which shines like a vaccination mark.

It constantly attacks the face, the side of the nose particularly, but is found on the legs, arms, and hands. No treatment is of any avail. Carbolic acid and glycerine are said to be good applications. Inoculation with the virus is said to give the disease in a mitigated form, and this system of protection is beginning to be practised. The water is as usual blamed for the disease, but this is not proved fully.

Fevers of remittent and low type are very common, and really when one considers the ill-drainage, and, indeed, the total absence of all sanitary precaution, it seems astounding the deaths are not very numerous The water supply is obtained from wells very often, and these are close by cess-pools, which are quite the rule in this place. The fœcal odour at times existing in the best houses in the place is something dreadful.

Small-pox is a regular visitant here and carries off great numbers. Inoculation has been practised for ages, and as is well known this wretched custom came into England from Asia Minor, through Lady Montague in the last century. Vaccination is practised by the Turkish military medical officers, and it is interesting to record that vaccination was introduced, *viâ* Bagdad and the Gulf, into India in the beginning of this century. It was for a long time a puzzle to know how to get the lymph into India, as in those days the long sea voyage prevented its being taken by sea, but by paying men it was carried from Damascus to Bagdad. Thence to Bassorah and thus to Bombay, from whence it has spread all over our Indian possessions.

(*m.*) *Hospital accommodation.*—The hospital accommodation for the civil population is almost *nil.* There is a municipal physician, an Englishman, but he has no medicines, and the treatment of the mass of the people is in the hands of practitioners who work under the old humoral pathology system. The Jews make capital arrangements, and their poor are well looked after by their own people. The citizens having built a large hospital, as before noticed, the Viceroy annexed it *as a temporary measure* for the use of the military. I mentioned in a preceding part of this report my visit to that hospital.

In leaving Bagdad, I may remark that there is here an English Consul-General and agent of the Indian Government who protects the very many (5,000) Indians who have settled near the holy cities at Kerbela and Nejf. Many of these men are, it is said, damaged characters, and some are men formerly living at Lucknow in the old king's days. It is said, but this is a rumour only, that the Indian malcontent Mahometans keep up a connection and correspondence with these men. There is little sport at Bagdad, gazelle may be shot, but there is capital pig-sticking, and some of the best sport of that kind in the east may be had within easy distance of the city on the river side. I may add that nothing could exceed the kindness I met with from the English officers here, and the goodness of His Excellency Raouf Pacha, the Viceroy of Turkish Arabia, was likewise very marked.

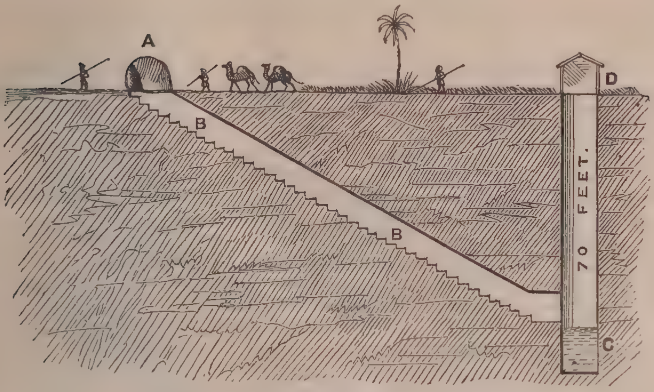
We now turn from the city of Bagdad, and crossing Mesopotamia to the Euphrates, visit Kerbela, Nejf, and the ruins of Babylon. Reference has before in this report been made to the existence of the Great Shiah Pilgrimages to the holy cities in Eastern Arabia, and no visit to this part of the world would be complete without seeing them. They lie on the extreme confines of the eastern side of Arabia, and to visit them one crosses the desert from Bagdad.

The Mesopotamian Desert, which was once the land of Babylonia, spreads for 80,000 square miles through the land enclosed by the river Tigris and Euphrates. That land would be called in India a *doab* or space enclosed by two rivers. This extended and perfectly level plain is composed of alluvial soil, gradually formed by water action, either in the bed of an enormous lake or borne downwards from an upper level by the river action. It has evidently been long exposed to water action. Not a stone of any size beyond that of a pebble exists, there is no outcropping rock, and simple clay is the only thing found. In crossing this desert and, constantly, every few hundred yards, one crosses the ancient and broken down remains of the old canals by which the former agricultural population watered the soil. These canals required care and attention, and indeed from their size and extent Government authority alone could keep them in order, and doubtless as law and order became shaken they fell into eventual decay, and with that the productions of the soil and the population fell off and disappeared. The land is still here, and the river still flows down ready for use, but the people who tilled the soil are long since departed. Turkish oppression and Arab vagrancy have both destroyed the land, and, when one thinks what a noble field lies here for a new race, one wishes that it were possible for England to take possession and open the land to the teeming population of India.

I rode from Bagdad 40 miles across the Desert to the Euphrates, thus crossing Mesopotamia from east to west. It is crossed by the pilgrims in four days. At every ten or twelve miles is a *caravanserai* or *khan*, a public shelter from the heat, and generally built close to the few wells that exist in the desert plains. These resting houses are very substantially-built quadrangular structures, having in the centre an open square for the baggage animals, and are sufficiently strong to withstand any attack from the wandering Arab freebooters who hang about the pilgrim's track, and constantly plunder any straying from it. These tribes carry their depredations to within sight of the domes and minarets of Bagdad, and under the very eyes of the Viceroy, caravans are plundered. Twice during my short stay such an occurrence took place, but no one seemed to think it at all a novelty. This was in March 1873. The names of the halting places, or *khans*, are as follows :—

From Bagdad to—1. Khan-es-Sad, 15 miles.
2. Bir Yunis, 10 miles.
3. Khan Iskanderia, 8 miles.
4. Mooseyib, 8 miles.

At each *khan* wells are found, and are generally of this fashion, 70 feet deep.



Well in the Desert of Mesopotamia.

A. Entrance to the stairs going to the well. B. Stairs to the well.
C. Well. D. Well shaft.

There is an opening (A), some 120 feet distant from the well (C), and by stairs (B) one descends and gets the water. This protects the well from being quite choked up by the dust and the sand of the desert. I saw constantly in crossing the desert the beautiful and descriptive phenomenon of the *mirage*, magnifying every little clump of thorn-bush into a shady grove, and every saltpetre covered plain into a pleasant lake, through which the distant caravan seemed to wade. I fully realized how the European traveller has often been misled by such things.

Across these weary plains in pain and in suffering the poor pilgrims worked out their tedious way, and surely if pilgrimage is to be rewarded hereafter, they earn well their guerdon.

Harassed by the burning heat and a terrible thirst, exposed to the lance of the wandering Arab, and the more constant plunderings of the Bedouin marauder, nor safe from the extortions and impositions of Turkish official rascality, they come for hundreds of miles from the interior of Persia, and even from distant parts of India, to worship at the Tomb of Ali and the burial place of his son Houssein.

They move in large columns for mutual protection, armed as best they can be, and the whole line of the desert is sometimes covered by them as by the columns of an army.

The shrouded forms of their dead relatives, borne on the backs of camels and ponies, formed a unique feature in the column. At length on the far horizon I saw with gladness, through the dust and glare of this wilderness, the distant forest of date palms which point out the line of the Euphrates, and soon the silver waters themselves flash through the openings in the trees. We give one more push forward to the tired horses, and in a few minutes we rest by the banks of this noble and historic stream.

We are now at Mooseyib on the banks of the Euphrates. Here the river is a grand and imposing flood, looking like the Rhine near Mainz, and flows with an unruffled and placid face between overhanging groves of the date palm, and along its banks are gardens watered by wheels and buckets from the river. Here we crossed the Euphrates by a bridge of boats, and rested in the *khan* of the place. The dead bodies of the pilgrims' friends lie about literally by the dozen, and piled-up like packing cases.

We made no long stay here, but, getting an escort of two *Zaptiyahs*, or native police, rode on by the banks of the Hooseniyeh canal, running from Mooseyib to Kerbela, and much used by the pilgrims who travel by boat thither. At sunrise we reached *Kerbela* or *Meshed Houssein*, that is "*the burial place of Houssein.*"

The burial place of Houssein, the son of Ali, and the grandson of Mahomet, Kerbela.
is much valued by the Shiah Mahometans, who look upon him as amongst the first martyrs of their faith. He was killed here in the early times of

the faith by the followers of the Omaigidee section of the faith in the year A.D. 680.

Here is a pleasant and a smiling land—in truth a garden in the wilderness—one little remains of what old Babylonia was in the days of her splendour, before decay and destruction fell upon the land. The waters of the canal from the Euphrates here turn everything into fertility, and the stir of the pilgrims makes the place flourishing. The birds were singing in the crowded date groves, beneath which was a delightful shade. Dates, oranges, pomegranates and vines grew in abundance, and doubtless to the weary pilgrims, as to me, it seemed a delightful haven of rest and enjoyment.

(*a.*) Kerbela the shrine of Houssein, and the seat of the Shiah Pilgrimage is situated in Lat. 32° 35′ N., and Long. 44° 7′ E., on a canal running from the Euphrates, and is literally on the verge of the Arabian desert, which can be seen stretching away without bound, from the walls of the city. It is a large well-built and flourishing town, with good streets and well-filled bazaars, and many excellent houses. The town is surrounded by a well-built brick wall, with bastions and four gates. It had need be well fortified, for before now it has been robbed by the Wahabi sectaries from the Nejd country in Arabia, to whom the desire to plunder a well furnished town, is made still more agreeable because it is the shrine of Houssein, and considered by them the seat of much idolatory, as they belong to the strictest Puritan Mahometans, and pay honour to no man's tomb on this earth. Few Europeans ever visit the place; not one in a year, if so many. The people are bigoted, and often insult strangers if known to be so.

(*b.*) *Population.*—20,000 permanently. But 100,000 prilgrims visit the place annually, which causes much traffic and stir. The fixed population is Arab; Arabic the language. The superior officials alone are Turkish.

We may here record that there is a large colony of (5,000) Indian Mussulmans living here and at Nejf, many of them Oude men, and some from Hyderabad in the Deccan. I saw many of them, their yellow complexion at once pointing them out.

(*c.*) *History.*—Kerbela is much identified with the early struggles of the Mahometan faith, and here in 680 A.D., in one of the battles between the rival sections of the faith Houssein was killed, and the place has since been deemed holy.

The place was sacked in the last century by the *Wahabi* sectaries, who rose up to purify Mahometanism and bring it back to the old strictness of Mahomet's law, and hence they vented their rage on the idolatrous men who could venerate any man's tomb—a principle wholly opposed to Mahometan views. It belongs to Turkey, as does all Arabia nominally, but westward of Kerbela the Turkish authority is limited by the range of the rifles of the Turkish soldiers. The Arabs laugh at all claims of Turkey over them.

(*e*), (*f*), (*g.*) *Civil and Military Authority* vests in a *Kymakham*, or governor, subordinate to the Viceroy at Bagdad. The troops (600 strong) were well armed with sniders, were clean, and well dressed.

(*h.*) *Commerce* is carried on by caravans with Bagdad. The influx of pilgrims make trade brisk, and the markets are constantly filled.

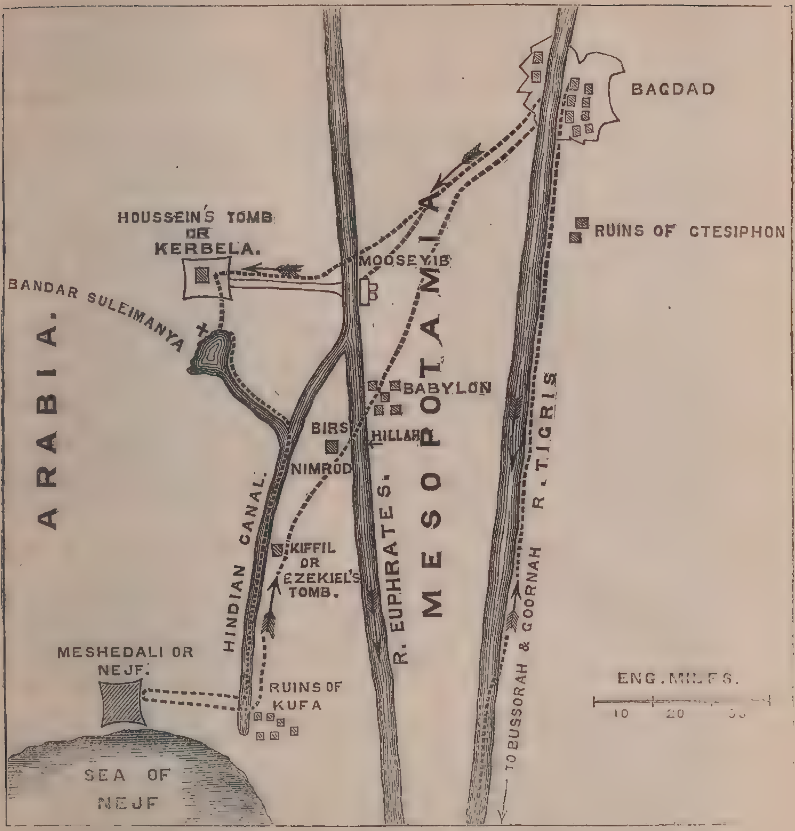
(*j.*) *Climate* as in Bagdad, with less fall of rain. During the summer, a burning wind blows off the Desert, but cultivation and irrigation have modified the climate of the place.

(*k.*) *Dress.*—White cotton, as in India, from April to September; other seasons, serge. Indian helmet at all times.

(*l.*) *Disease* as in Bagdad.

The interest of the place centres very much in the mosque tomb of Houssein, a fine and noble structure, quadrangular in shape, and surmounted by a spacious and shapely dome, covered with enamelled tiles, which shine in the sunlight. Arabic inscriptions from the Koran are placed round the dome, and all the ornamentation is strictly Arabesque. Beneath the dome in a tomb the body of Houssein sleeps. Around the walls here, but more especially at Nejf, many Persians love to be buried, and the ground is hired out or sold at certain rates. From this custom a good deal of money is made by the residents.

Leaving Kerbela, I set out by boat by the Hindian Canal for *Meshed Ali*, Nejf.



ROUGH PLAN OF THE COUNTRY BETWEEN BAGDAD, KERBELA, NEJF, AND BABYLON.

I left Kerbela, and rode to Bandar Suleimanya, where I embarked in a boat, and travelled by the Hindian Canal 35 miles or so past the Tomb of Ezekiel, at Kiffil and on to Kufa, now in ruins, but once the seat of the Caliphate and a centre of Arab civilization. Here I again took horse and rode a few miles, coming to the *city of Nejf or Meshed Ali*, a very holy city, and rarely visited by any European.

The city stands in latitude 32° N., and longitude 44° 24′ E., and is, in fact, in the desert or on its extreme verge, and on the border of a salt lake called the Sea of Nejf. It is well and substantially built, many of the bricks being those of ancient cities, and particularly of Babylon which is not far away. It is surrounded by a strong and lofty wall, and is well garrisoned by Turkish troops. It had need be so, as it stands like our Peshawur, the extreme outpost of the Turkish Empire looking towards Arabia. Here, in a magnificent mosque-tomb, sleeps Ali the Darling and the Mediator of the Shiah sectaries. A dome covered with beaten gold and visible over the desert for 20 miles covers the tomb. I was not allowed inside, but looked through the open door. Within, in a sarcophagus, was the tomb. The place was devoid of any ornamentation save Arabesque inscriptions, but a rich cloth of gold embroidery hung over the tomb. The troops at the station were particularly clean and well cared for, and no fault could be found with them in any way. They were all well armed with Sniders.

From Nejf we now turned back towards Bagdad, and again taking the pilgrim boats in which we had all along travelled, we proceeded back through the Hindian canal till we reached *Kiffil*, the tomb of Ezekiel the Hebrew teacher whose writings are in the bible. His tomb is visited by many Jews annually, and stands close by the bank of the canal. It is like all Mahometan and Jewish tombs singularly plain. The Semitic race have all been strongly impressed with this idea. Ancient books of Hebrew scriptures and the Talmud are still preserved there, and some ancient priests were hanging round the place.

As I stood on the minarets of the tomb, before me lay the desert that in every direction surrounds the place; and far away on the horizon rose the Birs Nimrouid, the remains of the Temple of Belus in ancient Babylon, a more desolate scene one cannot imagine.

Taking horse here I rode still through the desert, and fearing every man who came near to be some marauder until gradually I drew close to the site of *ancient Babylon*, which stood partly on the eastern and partly on the western side of the Euphrates.

Gradually I approached the Birs Nimrouid, the ruined temple of Belus once the centre of the old city. It is not necessary here to describe this place, suffice it to say that to-day it is still an enormous mountain of bricks, each very large, being 18 inches in every direction and beautifully burned. Many, indeed all, were beautifully stamped with the cunieform inscriptions, and were as sharp and clear as if only yesterday cast or moulded.

The Birs Nimrouid is six miles from Hillah and the Euphrates, and as I stood on the summit of the ruined and vitrified mass I saw the river flowing tranquilly amidst the plain, which is now all desert and strewn with broken bricks and pottery. Throughout the whole distance to Hillah the ruins extend, and irregular mounds exist, the remains of forgotten structures.

As the area of the old imperial city was 225 square miles it is easily imagined what space the ruins cover.

Hillah, a Turkish garrison on the river Euphrates, is a clean and stirring little town, built of Babylonian brick, and standing on a portion of the site of the ancient city. Here I recrossed the Euphrates. On its eastern bank great ruins of the city exist, and though the ruins are and have been for ages a quarry to build all adjacent cities, they are still big enough to give bricks to build a capital.

The ruins called *Mugellibe* or Babel, supposed by the Arabs to be the traditional Tower of Babel, are really a mountain of brick, and must one day have been a stupendous building.

From Babylon I recrossed the desert, striking the old pilgrim track half way to Bagdad, and will now end the portion of my journeys I have chosen to describe here as a Topographical Report. If the amount of medical matter be small still it is important, and I feel fully certain that these lands will one day attract great attention.

The railway proposed through the Euphrates Valley will, if it ever is constructed be purely an English undertaking. Turkey is quite unable to build it being quite bankrupt. Indeed, no other nation wants this line but England. Turkey does not want it, and even if she were ever so wealthy, a line through a desert would never pay. She would require a line from Constantinople from town to town, *viâ* Bagdad, to the Persian Gulf, and such a line would be wholly useless as a road to India if speed were a requisite. The railroad proposed is to start from Iskanderoon on the Mediterranean, and run a few miles across country until it strikes the Euphrates, and then follow it throughout its course until it struck the gulf at Kowet. Such a line would never pay, it is, perhaps, needless to remark. Unless a man were a fool he would not travel for hundreds of miles through a desert exposed to terrific heat, and then steam 1,800 miles through the hot and sickly Persian Gulf.

It would be simply a military road to be used in case Egypt was closed, but even for that it would be of very little use. In the hot season no soldier could travel through the desert cooped up in a troop train, and if they went singly like first-class passengers—which is absurd to think of—even then they would die of the heat.

In the winter they would require halting camps to rest in, and the heavy food supplies the English soldier always needs would have to be stored in fortified posts in the midst of the desert, and I look upon the Persian Gulf as more deadly by far than the Red Sea to traverse in a troop-ship.

The simplest way to keep the road to India open is by being strong in Egypt, and such we can any day be.

APPENDIX No. II.

REPORT ON THE ADMINISTRATION OF CHLOROFORM AND ETHER AS ANÆSTHETICS.

By Surgeon-Major J. H. PORTER, Assistant Professor of Military Surgery.

During the year 1875 chloroform and ether were administered at Netley Hospital in 21 and 26 cases respectively.

The following is an analysis of the time taken to place the patient under its influence, the quantity used, and their general effects as taken from a Register kept for that purpose:—

Chloroform.

	Minutes.	Seconds.
Shortest time taken to place under influence	2	30
Longest time ,, ,, ,, ...	14	30
Average time ,, ,, ,, ...	6	24
Average time under influence	12	48
Smallest quantity used in any one case	1 drachm.	
Largest quantity used ,, ,, ...	8 ,,	
Average quantity used ,, ,, ...	3 drachms 9 minums.	

Vomiting occurred in two cases during or after administration of the drug.

Excitement occurred in ten cases during or after administration of the drug.

Great prostration in one case after administration.

Ether.

	Minutes.	Seconds.
Shortest time taken to place under influence	3	30
Longest time ,, ,, ,, ...	24	0
Average time ,, ,, ,, ...	8	10
Average time under influence	19	6

Smallest quantity used in any one case, 2 ounces 4 drachms.
Largest quantity use in any one case, 9 ounces.
Average quantity used in any case, 5 ounces 1 drachm.

Vomiting occurred in 11 cases during or after the administration of the drug.

Excitement occurred in 7 cases to a marked degree during or after administration of the drug.

The anæsthetics were invariably given on empty stomachs.

Chloroform by means of a handkerchief or towel folded into the form of a cone, and ether by Mr. Morgans Inhaler.

Vomiting and excitement during or after administration of ether having occurred more frequently than one had been led to expect from former experience, the anæsthetic was carefully analysed and was found to be perfectly pure, and of specific gravity 720·2 at 64° Fah.

APPENDIX No. III.

FUNGUS HŒMATODES ON THE RIGHT SIDE.

By Surgeon-Major J. H. PORTER, Assistant Professor of Military Surgery.

No. 3744, Private H. L., 7th Regiment, age 39 years, 20 years' service. No history of hereditary predisposition to malignant disease. Has suffered from syphilis, but has generally enjoyed good health.

Admitted into Netley hospital from Dover, on the 25th of January 1875, with the following history:—

"On the 23rd of September 1874, was admitted into the regimental hospital with a tumour, about the size of a closed fist, in right infra-axillary region, the posterior edge being situated close to the latissimus dorsi muscle."

"There was no implication of the glands evident, and only occasional shooting pains in the tumour, which he first noticed in June of the same year.

"The tumour was removed by incision on the 26th of October, and was of a fibrous appearance. It was to all appearance removed and he progressed favourably for a time, but in five weeks there was a growth at the lower part of, and a little posterior to the incision, and on the 10th of December a tumour the size of a walnut was removed by an incision one inch behind the first; since then there has been rapid growth of a tumour in the same place, which has protruded through the sites of the two incisions until it has assumed its present size and fungous appearance. There has been but little hæmorrhage, but there has been great pain in the neighbourhood of the growth of a shooting character, preventing his getting much sleep."

He presented on admission to Netley a large tumour of fungoid appearance, extending from the axilla to the seventh rib, and from the anterior margin of the scapula to within two inches of the nipple on the right side. Its length from the posterior fold of the axilla to its lower extreme point, which was slightly below the inferior angle of the scapula, measured nine inches, transversely opposite the nipple behind its broadest parts it measured eleven inches.

At its lower part it had a large ulcerating cauliflower head somewhat divided into three lobes. The tumour stood out from the natural level of the ribs about three inches and a half in its more prominent parts from which it gradually sloped off to its roots.

There was slight discharge having very offensive odour.

The tumour gradually increased in size, and on several occasions during the month of February violent and exhaustive hæmorrage occurred from it, which after much trouble was checked by the application of the solid perchloride of iron.

The axillary glands became implicated, and pains so excessive that on several occasions he took as much as ten grains of the acetate of morphia in twenty-four hours to give relief from sufferings.

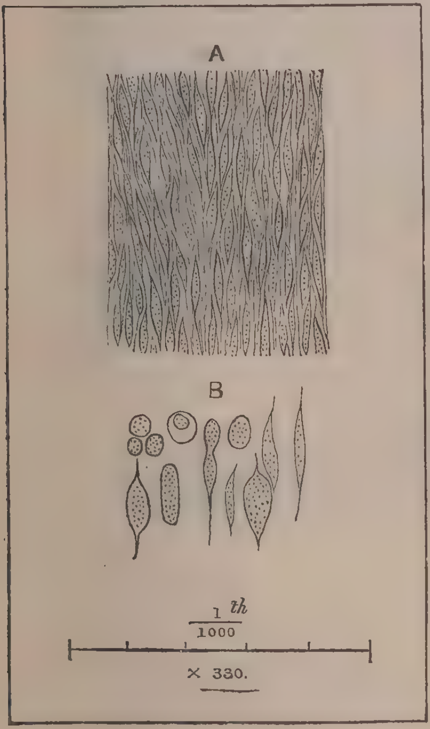
In March the tumour had become so large that it was necessary to sling the arm from a contrivance placed across his bed, to enable him to place it in an easy position, as he could not bring it across his body or by his side.

Large pieces of the tumour now sloughed off in a black, gangrenous and most offensive fœtid condition, rendering the atmosphere of the ward so offensive that persons remaining in it a few minutes carried on their clothes a stench so persistent that it remained for several hours.

He became gradually weaker, and on the 29th of March death released him from prolonged suffering and wretchedness.

With regard to the offensive smell from the tumour it may be remarked that the usual deodorisers were used, both as applications and as sprays in the ward, but that nothing was found so effective as *dry earth* in bags of gauze placed under the tumour, or sprinkled over it.

Surgeon Joseph Fleming was so good as to examine the structure of the tumour, and he gives the following account: "The tumour is very large of its class and irregularly lobulated, and between the lobules in the fibrous septa, as well as through the structure of the mass, there are numbers of blood vessels. Some parts of the tumour, especially those farthest from the surface of the skin, possess a scirrhus hardness and a glistening appearance on section, while in the other situations, near to the surface and in proximity to ulceration, the structure is very soft and presents the physical characters of encephaloid cancer. The pus from the sulci between the lobules abounds in bacteria and ciliated infusoria of a peculiar character and possess rapid migratory powers. On section an abundant milky juice exudes, which on microscopical examination is found to differ but little from that ordinary met with in soft cancer. The cells, however, floating in the fluid differ much in shape, some are small and circular with nucleoli, some contain besides a nucleus, some are elliptical, or elliptical with caudate processes at each end, others are like an hour glass, but the majority of them are spindle-shaped cells.

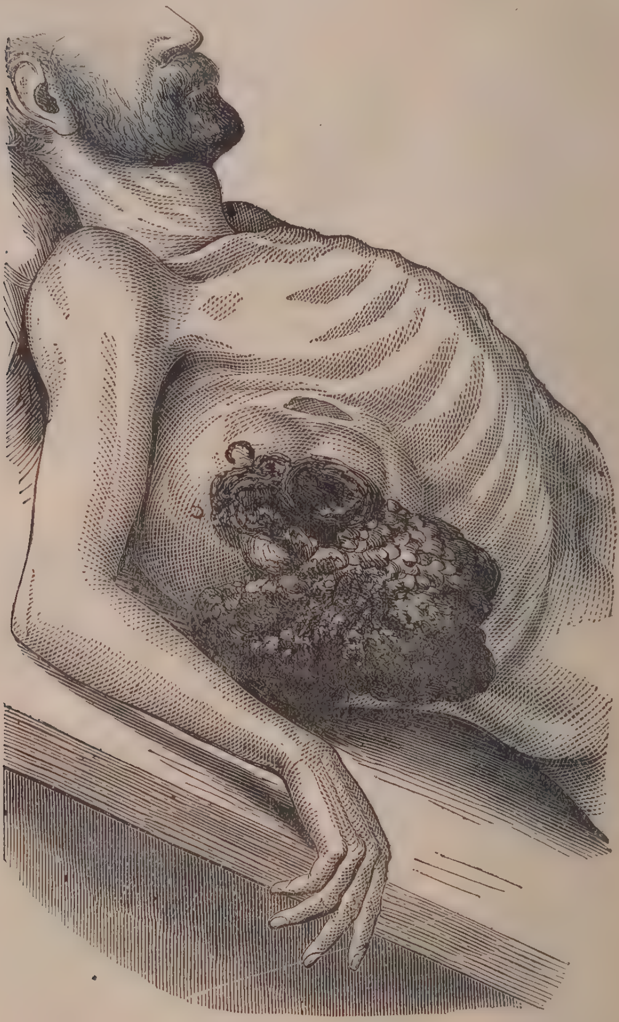


"Fig. A is the appearance of a thin transverse section taken from the deeper and firmer parts, showing the spindle-shaped cells closely packed together and imbedded in the fibrous stroma of the tumour.

"Fig. B represents the appearences of the cells found floating in the milky juice of the freshly cut surfaces, and magnified 350 diameters.

"The tumour is evidently composed of the cellular elements of at least two forms of cancer, a condition not unfrequently met with."

The following illustration, kindly taken by Doctor J. D. Macdonald, R.N., F.R.S., represents the body and tumour 12 hours after death,



APPENDIX No. IV.

CASE OF ANEURISM OF FEMORAL ARTERY—LIGATURE OF EXTERNAL ILIAC.

By Surgeon-Major E. A. ROBERTS, 9th Foot.

ON the 10th of October 1873, Private P. C., 1st Battalion 9th Regiment, came to me and shewed me an aneurismal tumour of the size of a turkey's egg, about the middle of scarpa's triangle. He said that "on the 25th of the preceding July while he was moving a heavy box on baggage fatigue, he felt something give way on the inside of his thigh, and soon afterwards he noticed a lump there ; it gave him no pain or inconvenience, but he would like to know what it was." He was at once taken into hospital, and various modes of pressure were adopted, but he was excessively irritable, and could not bear any prolonged pressure. Up to the 18th of October I thought the tumour smaller, and with decidedly less thrill in it ; this I concluded was due to the intermittent pressure that had been used. In the evening of this day he complained of great pain in the tumour and thigh, and said the limb was "numb." On the morning of the 19th there was no doubt that the aneurism was larger and the thrill quite distinct ; large doses of chloral were given, the thigh was bandaged and flexed on the abdomen, and he was kept on low diet, but the pain was unbearable, and the swelling was increasing very perceptably. It was now the size of a large man's fist, and extended upwards to brim of the pelvis ; there was also considerable œdematous swelling of thigh. At 3 p.m. I concluded that it was necessary to ligature the external iliac artery. A request was sent to Surgeon West, A.M.D., Defensible Barracks, to come to the Station Hospital as soon as he could to give chloroform and to afford me assistance. The patient had taken no food since early morning. The external iliac artery was cut down upon and tied with silk thread. During the operation one artery was twisted and another tied. The lips of the necessarily very large wound were brought together by suture, and dressed with lint wet with carbolized water, the limb being surrounded with cotton wool and hot bottles. As precaution had been taken of allowing no food, there was no sickness after chloroform. He had some egg, beef-tea, and arrowroot two hours after the operation. Instructions were also given that the patient should have similar food about every three hours, if he was not asleep ; 25 grains of chloral were given at 10 p.m. On 21st he was found to have passed a good night, the limb was warm but still œdematous. To be brief, the ligature came away ont he 9th of November, eighteen days after the operation. By the 4th of December the wound had healed up to a small surface about the size of a sixpenny piece. The temperature of the limb was but a very little lower than the other, all œdema had gone, the swelling had resolved itself into a hard pulseless and diminishing tumour. On the 23rd of December the wound had quite healed and he was discharged, to attend hospital for a few days. He was re-admitted to hospital on January 7th, the lower margin of the wound had broken out again. He states that the limb feels a little colder than the other, but has no numbness ; there is a spindle-shaped thickness of the artery in scarpus triangle, but that is all. Third of February he was discharged to duty as detachment cook at Penally. The wound is now soundly healed, and he says there is no difference between one limb and the other. Owing to the great length of the wound I had to make in the abdomen, the wall is weakened, and the bowels give an impulse on coughing. He will never be able to do his full duty as a soldier with his belts on, but for all ordinary purposes of life he is as sound as ever he was. He was invalided for hernia on the 7th September 1874.

APPENDIX No. V.

LIST OF OPERATIONS PERFORMED AT THE ROYAL VICTORIA HOSPITAL, NETLEY, DURING THE YEAR 1875, WITH SHORT ABSTRACTS OF THE MORE IMPORTANT CASES.

By Surgeon-Major J. H. Porter, A.M.D., Assistant Professor of Military Surgery.

Operations.	Number of Cases.	Disease.	Result.				Remarks.
			Successful.	Otherwise.	In Hospital.	Died.	
Amputations.							
At second phalangeal joint middle finger of left hand.	1	Contraction of middle finger left hand, second phalangeal joint.	1	...	...	...	
Carden's, through left knee joint.	1	Synovitis, left knee joint, gelatinous degeneration.	1	...	...	...	See Case No. 1.
Middle third left leg, by posterior flap. Sir W. Ferguson's method.	1	Compound comminuted fracture of left leg, lower third, by railway carriage wheels passing over it.	1	...	...	...	See Case No. 2.
Excision of Joints.							
Excision of left knee joint ...	1	Pulpy degeneration ...	1	...	...	...	See Case No. 3.
Urinary Organs.							
Radical Cure of Stricture—							
Holt's	5	Stricture of urethra ...	5	...	...	...	See Remarks on Stricture.
By dilatation	19	Ditto	18	1	...	...	
Perineal section	2	Ditto	...	...	...	2	
Removal of Calculus.							
Lithotomy, median operation ...	1	Calculus of bladder ...	1	...	...	1	See Remarks on Stricture.
Genital Organs							
Tapping and injecting with iodine.	14	Hydrocele	14	...	...	...	
Circumcision	2	Phymosis	2	...	...	...	
On the Anus.							
Removal by Smith's clamp and actual cautery.	4	Hæmorrhoids	4	...	...	...	

Operations.	Number of Cases.	Disease.	Result.				Remarks.
			Successful.	Otherwise.	In Hospital.	Died.	
Air Passages.							
Tracheotomy	1	Diffuse inflammation of neck.	...	...	...	1	See Case No. 4.
Blood Vessels.							
Ligature of the right common carotid artery above omo-hyoid muscle.	1	Cancer of tongue (colloid)	1	...	...	...	See Case No. 5.
Ligature of external iliac artery, right side.	1	Popliteal aneurism and dilatation of femoral artery, near Poupart's ligament.	1	...	...	...	See Case No. 6.
Compression	4	Popliteal aneurism ...	3	1	...	...	See Cases Nos. 6, 7, and 8.
Removal of necrosed bone ...	1	Necrosis, left arm	1	...	...	...	
Ditto	2	Right tibia	1	1	...	...	
Tumours.							
Removal of, by antiseptic method.	2	Fatty tumours over left scapula.	2	...	...	...	
Tendons.							
Division of right biceps tendon at elbow.	1	Contraction of tendon in front of right elbow.	1	...	...	...	
On the Eye.							
Extirpation of right eyeball ...	1	Disorganization of right eye from injury.	1	...	...	...	See Case No 9
Removal of pterygium	2	Pterygium	2	..	...	...	
Dislocation.							
Reduction of	3	Dislocation of left shoulder	3	...	...	...	
Ditto	1	Head of right femur ...	1	...	...	...	See Case No. 2.
Removal of loose cartilage ...	1	Loose cartilage, right knee joint.	1	...	...	...	See Case No. 10.
Removal of polypus, left ear ...	1	Polypus, left ear	1	...	...	...	
Mouth	1	Hare-lip	1	...	...	...	

Case 1.—*Amputation through the Left Knee Joint by Carden's Method.*

This case is especially interesting in consequence of hæmorrhage having set in on the eighth day after the operation, apparently due to malarial influence.

Private W. W., 70th Regiment, 22 years of age; service 5 years, 16 months of which were spent at home, and 3 years and 8 months in India. No history of syphilis or hereditary hæmorrhagic diathesis. He appears to have enjoyed good health in India until September 1873, when at Rawul Pindee he was attacked with intermittent fever of severe form, from which he suffered for upwards of three months, and which suddenly culminated in an attack of rheumatism of both knee-joints. The right knee recovered, but the left continued painful; his health became much impaired; strumous abscesses formed in his neck, and he lost part of the hard and soft palate from necrosis and ulceration. He was sent to the Sanitarium at Murree in April 1874, but, not having benefitted by the change of climate, was invalided to England in March 1875.

On arrival at Netley, April 30th, he was in a weak anæmic condition; his weight was only 6 stone. The left knee was swollen and painful, but there being no immediate necessity for surgical interference, an endeavour was made to improve his health, which for some time succeeded; but in July, the joint having become very painful, with loss of rest, profuse perspiration and diarrhœa, it was considered necessary to remove the limb at the knee-joint.

On the 8th of July, by the bloodless method, the patient being under the influence of ether, amputation was performed after Carden's method, and the bone sawn through the condyles of the femur. The operation was followed by the greatest relief, his temperature fell, night perspirations and diarrhœa ceased, and appetite improved.

Matters progressed satisfactorily till the 16th, or eighth day after the operation, when, in the afternoon the patient became chilly and irritable, stump swollen, painful, and throbbing; face flushed; tongue dry and furred; temperature increased; pulse 114.

These symptoms steadily became worse till 5 A.M. on the 17th, when hæmorrhage set in in the form of oozing of venous blood from under the edge of the flap; this continued at intervals, notwithstanding elevation of stump, applications of cold, and pressure, till 10 A.M., when it was found necessary to place him under the influence of ether, break open the adhesions, and turn out coagulæ, with a view to discovering the source of bleeding. No bleeding vessel could be found, the hæmorrhage coming from the surface of the stump, and especially from the cancellated bone structure, as if it were forced out of it by pressure from behind. The surface of the stump was freely exposed to the air and ice bags placed in its immediate neighbourhood; but until a strong solution of perchloride of iron was applied the bleeding continued. The flap was now replaced, stump elevated, and all constrictions removed, after which with the aid of 10 mins. of tincture of opium, he passed into a quiet sleep, from which he awoke cool, pulse quiet, and no pains or throbbing in the stump; he was, however, very weak, and required a liberal amount of nourishment.

18*th of June.*—Report states patient passed a good night, and is improved this morning. Ordered 10 mins. tinct. ergot three times a-day, with cool acid drinks.

19*th June.*—At half-past 9 last evening, preceded by the same symptoms as occurred on the 17th, oozing from the stump again appeared, when it was found necessary to open it up and apply the solution of iron, this, with the application of ice and the elevation of limb, caused the bleeding to cease, and he passed into a quiet sleep, from which he awoke refreshed.

20*th June.*—No bleeding yesterday; but at 9 A.M. this morning, preceded by the symptoms as already described, oozing again set in, which continued so persistently, notwithstanding active treatment, local and constitutional, that it was feared the patient might sink from exhaustion; he was, however, kept up by the judicious administration of nourishment and stimulants, and he again passed into a quiet sleep, the hæmorrhage stopping.

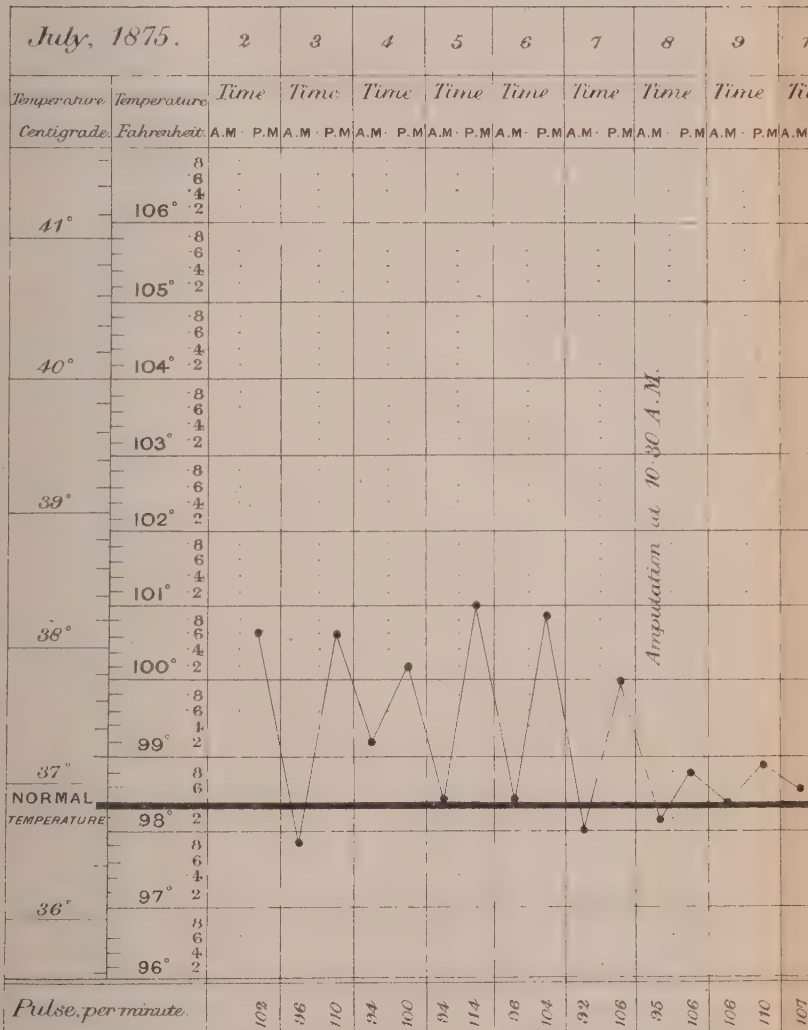
21*st June.*—At 5 A.M. this morning, preceded by the usual symptoms, oozing from the stump again appeared, when the solution of iron was applied. Dilute sulphuric acid and opium were administered, but were rejected by the stomach; the hæmorrhage, however, ceased as before.

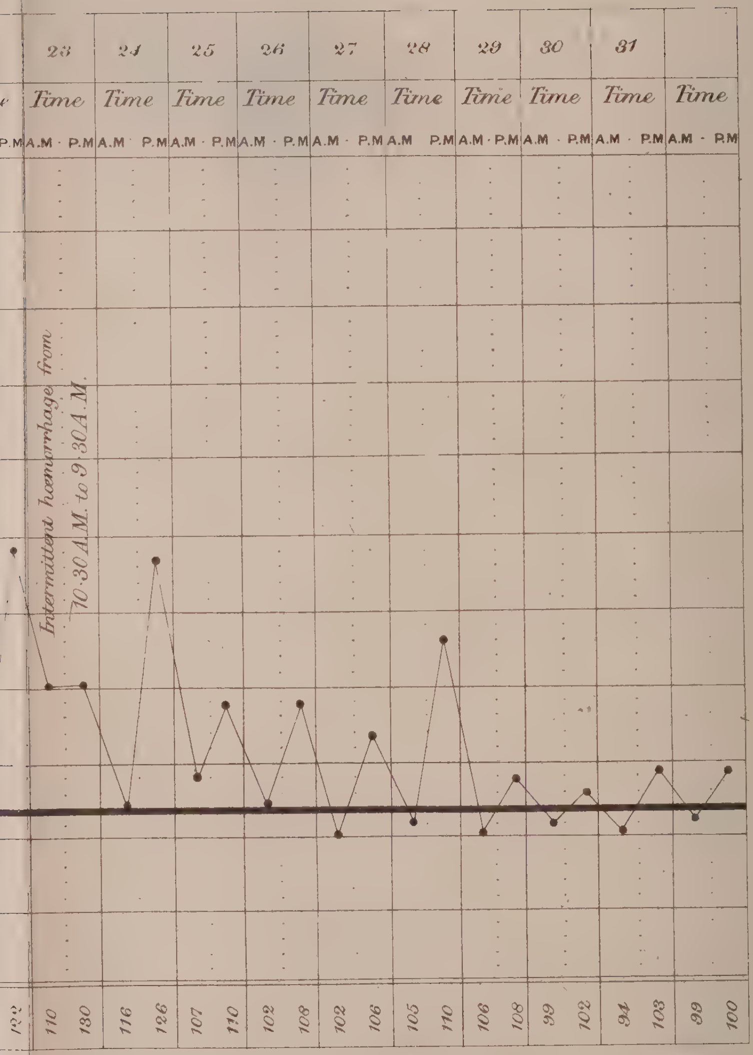
22*nd June.*—Patient passed a good night, but is very weak; the stump has a very unfavourable appearance, presenting to view a mass of black crusts of iron and blood, with a hæmorrhagic smell from it, and no attempt at suppuration.

23*rd June.*—Symptoms of approaching hæmorrhage returned last evening, and, notwithstanding the administration of ergot, acids, astringents and opium, with elevation of stump, and applications of pressure, oozing set in at 12.30 this morning, and gradually increased until it was found necessary, at 9 A.M., to apply styptics.

The condition of the man having now become alarming, he was pale, almost exhausted, and pulseless, and the hæmorrhage having presented the character of periodicity, and bearing in mind that he had suffered from severe intermittent fever in 1873, it was decided to try the effects of quinine, which was added in 5-grain doses to the mixture of sulphuric acid and opium, but which

WILLIAM WESTON, 70TH REGIMENT.





23
24
25
26
27
28
29
30
31
Time
A.M. · P.M.
Intermittent hœmorrhage from
10·30 A.M. to 9·30 A.M.
110
130
116
126
107
110
102
108
102
106
105
110
106
108
99
102
94
103
99
100

his stomach at once rejected; the quinine was therefore given in a simple form with acid, 5 grains, three times a-day.

24th June.—No hæmorrhage since yesterday morning; has taken 15 grains of quinine without any inconvenience; appearance decidedly improved,

25th June.—At 8 P.M. yesterday symptoms of approaching hæmorrhage again set in; temperature rose to 101·7°, pulse 126; but at 9 P.M., instead of oozing from the stump, he broke into a copious perspiration, after which he cooled down, and passed into a natural sleep. From this time he steadily improved, but not without occasional recurrence of symptoms of approaching hæmorrhage, which, having gone through its usual stages, ended by action of the skin, instead of oozing from the stump. The quinine was continued, the stump soon threw off its blackened cap, healthy granulations sprang up, and he rapily recovered. On discharge from hospital in December, his weight was 8 st. 2 lb.

The attached temperature chart will assist in explaining the periodic attacks of hæmorrhage, &c.:—

Case 2.—Compound Comminuted Fracture of the Lower Third of the Left Leg and Dislocation of the Right Hip on the Dorsum Ilium.

Pensioner L., of the Royal Marines, aged 47; family healthy, although he has always been a free liver; was admitted into the Royal Victoria Hospital, Netley, on the 21st September 1875.

He states that about 8·30 A.M. on the 21st September, he went to the Netley Railway Station to see a friend off to Southampton; that, as he was standing on the edge of the platform when the train approached the station, he turned round to get out of its way, but in doing so stumbled and fell on to the rails, and that before he could regain the platform, the engine had knocked him down, its wheels passing over his leg. Symptoms on admission:—

The left leg, at the junction of the middle and lower third was almost severed, the bones being literally pulverized, and the soft parts fearfully mangled.

There was no hæmorrhage, but the limb was firmly bound above and below the knee with a handkerchief, which a serjeant of the Army Hospital Corps had applied at the station. On cutting the boot off the foot, the integument covering the ankle-joint was found to be extensively lacerated, disclosing the soft parts in a state of pulp, and only the articulating surface of the astragalus *in situ*. The toes of the right foot were resting on the opposite instep, the knee turned inwards, and a little advanced upon the other, and the limb some two inches shorter than its fellow, indicating a dislocation of the head of right femur on the dorsum of the ilium.

His face was pale, pinched, and anxious; the extremities cold, the pulse small and weak, the voice feeble, and the mind wandering occasionally; in short, all the symptoms of severe shock were present.

The patient having been brought under the influence of ether, reduction of the dislocation of the hip was effected, mainly by manipulation. Esmarch's bandage was then applied to the injured limb, and amputation at the middle third by the long posterior flap, commonly known as Sir William Ferguson's method, was successfully performed. There was scarcely a drop of blood lost in the operation.

The chief vessels having been secured, the end of the stump cleaned of all blood, and the surface dried, the edges of the flaps were adjusted, and kept in apposition by silk sutures. A few pads of lint dipped in a weak solution of carbolic acid, were then applied, so as to exercise gentle pressure on the base of the flaps, but the surface of the wound was covered by a thin strip of lint moistened with the carbolic lotion, so as to allow of the free escape of serum.

Progress of the case most satisfactory.

Case 3.—Excision of the Left Knee Joint

The operation of excision of the knee joint in children being questioned the following particulars may be found interesting:—

J. L., aged 3 years 7 months, of a dark strumous appearance; family history unsatisfactory, his father having had his right leg amputated through the knee-joint at Netley in November 1874, for pulpy degeneration and scrofulous disease.

His mother gives the following history of the child's illness:—Early in January 1871, while stationed at Gibraltar, he suffered from "rock fever," and since then has been very delicate, frequently suffering from diarrhœa and prolapse of the rectum.

In September 1874 he experienced a fall on the pavement, and at the time complained of pain in the left knee; the following morning it was swollen, and he was quite unable to walk with it; however, after local applications for a few days, he was able to use it, but the lameness and swelling of the joint continued, and in January 1875 he became so bad that he was admitted into the hospital at Netley for women and children. He remained there under treatment till July 8th, when, no improvement having taken place, and the joint being greatly swollen and acutely painful on the slightest movement, the operation of excision was decided upon.

The joint at that time presented the following appearances:—Contracted to a right angle with a globular outline, some enlarged veins on the surface. It measured an inch and a quarter in circumference more than the sound one. The enlargement of the joint apparently depended upon thickening of the extremities of the femur and tibiæ, as there was no fluctuation to be detected. There was very little heat, but the tenderness was great, and his health was gradually becoming impaired from loss of rest and confinement.

On the 12th of July, the little patient having been anæsthesied with chloroform, and limb rendered bloodless by Esmarch's bandage, the operation of excision was performed by the "horse-shoe" method of incision, which afforded free access to the joint and the easy removal of the articulating ends of the femur and tibiæ, care being taken not to go beyond their epiphysis. The patella was removed.

On the removal of Esmarch's bandage and the re-admission of blood into the limb, two small vessels were found to bleed pretty freely, and were secured by the finest of carbolized catgut ligature, and cut short; these were never met with afterwards.

The wound having been thoroughly cleansed and all bleeding checked, the flap was secured with silver-wire sutures, and the limb lightly bandaged with very fine bandage from the toes to the upper part of the thigh; the wound being left perfectly free. The parts were then adjusted in a straight position upon a metal back splint, with a foot-piece. A bracketted side splint was placed on the outside, extending from the axilla to beyond the toes, the bracket being opposite the wound. A short scored splint was placed in front of the thigh, with a view to keeping it down, and the whole firmly secured with a bandage round the foot and limb, and a binder round the upper part of bracketted splint and body. The wound was left free, but dressed with a piece of wet lint.

Having been placed in bed, he rapidly recovered from the effects of the chloroform, and whether from terror or pain, or both combined, he got into a most violent state of agitation, flung himself about, and displaced the splints. It was therefore necessary to re-adjust them, and, in doing so, the limb was first securely fastened to the back splint and anterior thigh-splint by means of a plaster-of-Paris bandage. The bracketted splint was then applied; with this arrangement the parts were perfectly fixed; and after the administration of 4 mins. of tinc. opium, he passed into a quiet sleep, and had no return of the agitations.

With the exception of retention of urine for several hours after the operation, which was relieved by the introduction of a catheter, no unpleasant symptoms followed. The sutures were removed from the flap on the fourth day.

On the 2nd of August and 14th of September the bandages were re-applied; on the latter date there was no pain, and but little discharge from a small sinus at the outer angle of the wound. Union of the bones had taken place, as he was able to lift his foot without support. On the 8th of October the splints were removed, and the limb simply supported by a plaster-of-Paris bandage.

12*th Nov.*—He has much improved in health; there is perfect union at the joint; he is able to place the limb under him, and there is only three-eighths of an inch shortening, as represented by two very thin books placed under the heel. There are, however, still two small openings at the angle of the wound, from which there is a very slight discharge not connected with bone.

Case 4.—Diffuse Inflammation of the Cellular Tissue of the Neck. Tracheotomy. Death.

No. 142, Private S. N., 76th Regiment, was invalided from Secunderabad on the 1st March, and admitted to the Royal Victoria Hospital on the 6th of April 1875.

On admission he was in a very weak and prostrate condition, and looked anæmic and sallow. A tumour of some size occupied the right cheek, and was most prominent over the region of the lower jaw and of a scirrhous hardness.

Close to the angle of the mouth the right cheek presented a fistulous opening, which communicated with the cavity of the mouth opposite the molar teeth.

The whole of the right side of the neck was the seat of brawny œdematous swelling, reaching downwards over the pectoral region. The submaxillary glands of the same side were much enlarged and thickened, and included in the tumour of the cheek and the lymphatic glands, and those in the right axilla were in the same diseased condition.

On the 8th rigors set in, succeeded by fever, and pain of a throbbing character was felt deeply seated in the neck and over the right side of the chest, which now began to feel boggy and to shew signs of faint fluctuation. Poultices were applied to the neck, and on the following day no change of importance was noted. He continued, however, in a feverish condition; pulse small and weak; temperature in the axilla, 100·1°.

10*th*.—Great constitutional disturbance. Since yesterday, the swelling on the right side had greatly subsided, but now the left side was attacked by diffuse and erysipelatous-like inflammation, extending over the clavicles and bulging out superiorly into a hard inflammatory tumour, excessively tender to the touch, while an erysipelatous blush pervaded the neck generally. Incisions were made down the neck and behind the left sterno-mastoid; but nothing came away except a little blood mixed with pus.

11*th*.—Passed a better night, but his neck had increased to double its usual size. During the afternoon an attack of dyspnœa came on, and increased with alarming rapidity, and, just as asphyxia appeared imminent, at 5·38 P.M., tracheotomy was performed, with instant relief to the patient, who became conscious, and soon afterwards fell into a tranquil sleep. The operation was rendered difficult by the great depth at which the trachea lay imbedded in the infiltrated tissues; but, after that, the pulse, which was before weak and irregular, became much improved in strength and rhythm.

12*th*.—He passed a restless night, with occasional delirium. Pupils sluggish. pulse irregular and weak, and can scarcely be counted. Urine passed involuntarily; temperature 102°; pyæmic odour of the respired air noticed. The edges of the wound caused by the operation are glazed and dry, and there are no signs of reaction or discharge. The patient gradually sank, and died at 5·30 P.M.

The *post-mortem* examination shewed excessive inflammation and deep-seated suppuration of both sides of the neck as far as the chest. Glands contained purulent deposits, and were of a scirrhous hardness. Angle and ramus of the lower jaw, right side, almost destroyed by caries; uvula much elongated and œdematous; epiglottis thickened and in the same condition; aryteno-epiglottidean folds, vocal chords, &c., thickened, highly congested, and œdematous, so much so that the parts were almost approximated. Deep-seated suppuration had extended behind the larynx and trachea.

Microscopical examination detected cancer cells infiltrating the textures about the right cheek and submaxillary region, and were like those of scirrhus, while others presented the appearance of cells found usually in the medullary sarcoma.

Case 5.—Cancer of Tongue, with Hæmorrhage.—Ligature of Right Common Carotid Artery.

Serjeant J. H., Indian Commissariat, age 42 years, service in India 20 years, enjoyed good health (with the exception of mild attacks of ague) until October 1874, when he suffered from pneumonia and pleurisy, the result of exposure on duty during the famine in Bengal. During this illness he first observed a small ulcer on the right side of his tongue, which, being brought to the notice of his medical attendant, was frequently cauterized, but without any benefit. He was invalided, and arrived at Netley on the 26th May 1875.

On admission, he presented an extremely emaciated and cachectic appearance, and complained a good deal of the pain in his mouth. There was a large ulcer on the right side of his tongue, extending from the tip almost to the root; this was covered by a grayish slough, and he was much inconvenienced by the constant flow of a most offensive discharge from his mouth.

The glands of the neck did not appear to be implicated by the disease, nor had he any previous history of malignant disease or syphilis. He had always been temperate, but was an inveterate smoker, using strong tobacco and clay pipes. His appetite was good, but he had to take all his nourishment in a fluid form, and, to insure rest at night, narcotics were necessary. Before his admission to Netley no hæmorrhage had taken place; but on the morning of the 7th June severe bleeding came on, which was arrested by pressure and styptics; on its recurrence, in the afternoon of the same day, it was not so easily controlled, and, as he had lost a good deal of blood and was very weak, ligature of the common carotid artery was deemed necessary. The operation was accordingly performed at 6 P.M., and the vessel tied just above the omo-hyoid muscle.

On the 24th June the ligature came away, and the wound healed well.

The ulceration of the tongue continued, and several sloughs separated; but there was no return of the hæmorrhage up to the 24th August, on which date he left Netley for the Cancer Hospital, Brompton.

Case 6.—Double Popliteal Aneurism, with Femoral Aneurism of Right Side. Ligature of Right External Iliac Artery.—Left Popliteal Aneurism Cured by Compression.

G. F. H., aged 28 years; appearance healthy; has had primary syphilis twice; suppurating bubo once; no history of rheumatism or secondary syphilis but his family history is not good, both parents being of weak constitution.

In November 1874 he first noticed a swelling behind the left knee joint, accompanied by nocturnal pains. About a month afterwards a similar swelling attracted his attention in the right leg. When in the act of kneeling at his devotions he felt considerable pain in these swellings, caused by the pressure between the thighs and calves of his legs. No particular attention was paid to this state of things until February 5th, 1875, when the swellings became painful and, being on the voyage from Canada to Liverpool, he consulted the doctor of the steamer, who gave it as his opinion that both were popliteal aneurisms.

During the remainder of the voyage flexion of the limbs was carried out with the hope of consolidating the tumours, but he could not bear it for any time. When he joined his regiment at Aldershot, treatment by pressure on both femorals was carried out from the 20th to 24th February; but, as it proved unsuccessful, he was moved to Netley Hospital for further treatment.

On admission he was found to have two large popliteal aneurisms, one in each leg. Pressure was commenced on both femoral arteries by means of Carte's and Signoroni's instruments, and continued, with very little intermission, until March 4th, when the tumour in the left leg was found to be tolerably well consolidated. Read's compressor, 3rd series, was now applied, alternated with Carte's, and on the 6th of March the pulsation had ceased in the tumour.

Although subjected to the same treatment, no improvement could be detected in the condition of the right popliteal aneurism, and on the 13th of March a dilatation of the femoral artery was noticed about two inches below Poupart's ligament, which complicated matters very seriously, there being as yet no attempt at consolidation in the popliteal aneurism.

Digital pressure was now commenced against the brim of the pelvis, in addition to that exercised by Carte's and Signoroni's instruments lower down in the thigh. These modes were continued until the 2nd April, but without any benefit. Flexion of the thigh on the body with the subcutaneous injection of Langenbeck's solution of ergotine, were next resorted to, and fairly tried until the 26th April; but without success. As a last resource, 20 gr. doses of iodide of potasssium were given three times a-day, but this also failed in its effect.

In consultation with Sir James Paget and Professor Longmore, it was decided to tie the right external iliac artery, and, with the assistance of these gentlemen, the operation was performed on the 10th May in the usual manner. Due precautions were carefully observed; the vessel was reached with very little trouble, and being found healthy was tied with a silken ligature, both ends of which were left out of the wound.

The wound was closed with silver-wire sutures at the upper part (the lower being left open), and dressed with carbolized oil.

The limb was placed on a pillow in an everted and semi-flexed position, and covered up in cotton wool.

Constipation and flatulency were the only unpleasant symptoms complained of during the treatment.

The ligature came away on the 35th day, and the patient was out driving on the sixtieth day.

He left Netley on the 10th August *en route* for Canada.

The following are Professor Parke's remarks on his circulatory system previous to the operation:—"Heart in natural position; impulse, extremely feeble; at apex, first sound, very short and feeble, second sound well heard, no murmur. Midway between sternum and nipple, a very slight, but quite undoubted, diastolic murmur, not carried to apex, though it can be heard a little down the sternum. At the third left and second right cartilage it is hardly heard, and often undetectable. Both radials rather tortuous, slightly locomotive. Brachials not apparently changed. Nothing decided about abdominal aorta; a good deal of pulsation. Right femoral dilated: Popliteal aneurism."

Case 7.—Left Popliteal Aneurism.

A. M., 32nd Regiment, aged 32; service, 10 years; a tall, well-developed man; habits, temperate. There is a history of primary syphilis, but none of secondary syphilis or rheumatism. He traces present disease to an accident. When stationed at King Williamstown in January 1875 he was employed on police duty, and when walking along a bad road at night he put his foot in a rut and was tripped up. At the time, he had an idea that something had given way in his thigh; but was not inconvenienced by it until the commencement of March, when he begun to feel pain in the left knee and calf of leg.

He went to hospital, and when rubbing in some liniment for the pains he became aware that there was a pulsating tumour behind the knee joint. He reported this to the Surgeon, and was admitted to hospital, where he was kept at rest, given low diet, and 20 gr: doses of iodide of potassium.

Treatment by flexion (during the daytime only) was fairly tried for 8 days, but, as it was not successful, digital compression was resorted to and maintained for 20 days; but only succeeded in reducing the size of the tumour "a little." He was then invalided to England. On admission to the Royal Victoria Hospital, the following was his state:

In the left popliteal space there was a tumour about the size of a hen's egg, which communicated to the hand a strong heaving and expansile pulsation. Firm pressure on the femoral artery completely arrested it. A bruit was audible in the tumour. Patient's condition very nervous and exciteable. Action of heart rapid, and every artery in the body pulsating strongly. The man was ordered to bed, and to keep perfectly quiet for a few days; he was given "low" diet and 15 gr: of iodide of potass: three times a-day.

On the 26th June the treatment by compression was commenced. The groin was shaved, and well covered with French chalk; Carte's tourniquet was put on at the lower part of Scarpa's triangle, and Read's compressor, 3rd series, over the femoral artery, just below Poupart's ligament. Instructions were given to use them alternately, whenever one or other caused pain; at the same time allowing a moderate flow of blood through the vessel; they were kept on until 7 P.M. A dose of Batley's sedative was given at bed time.

27th June.—Instruments re-applied at 7 A.M., and continued until 7 P.M. The patient took great interest in the proceedings.

28th June.—Tumour harder; less pulsation. Slight pains in the knee during the night. Instruments applied as before; slight œdema caused by the pressure.

29th June.—More pain in the knee and tumour. Pressure commenced at 7 A.M.; but Read's compressor had to be removed at 10 A.M. on account of the pain in the groin.

Signoroni's tourniquet tried, but not being found to answer, the former was re-adjusted. Collateral circulation is being established. Instruments removed at 6·30 P.M., the pulsation in the sac being almost gone. A burning kind of pain was felt until midnight, when all pulsation ceased, and he slept well until morning.

30th June.—Pulsation stopped; limb cold and numb; wrapped in cotton wool and flannel. Moderate pressure continued during the day.

1st July.—Treatment discontinued. Patient to keep quiet in bed for a few days.

TABLE shewing the details of Treatment.

Date.	Pressure applied.	Pressure removed.	Instruments used.	Hours per day.
1875.	A.M.	P.M.		H. M.
June 26 ..	11 15	7 0	Read's and Carte's alternately every quarter of an hour	7 45
„ 27 ..	7 0	7 0	Ditto ditto	12 0
„ 28 ..	7 7	7 5	Ditto Signoroni's, for an hour only ..	12 0
„ 29 ..	7 0	6 30	Read's and Carte's	11 30
			Total	43 15

Case 8.—Right Popliteal Aneurism.

Private T. C., 67th Regiment, aged 33, service, 16 years; admitted to Netley Hospital on 30th April 1875 for the above disease.

In November last, when serving in Burmah, he was first troubled with lancinating intermittent pains extending from inside of right thigh down to the foot. About the beginning of December he noticed a swelling in the popliteal space, which soon increased in size, and the pains became more severe. On the 4th December he was admitted into hospital, and remained in until the 16th, when he was invalided. On his way home he was treated in the hospital of the 45th Regiment by digital compression on the artery and by flexion of the limb; and on the voyage home the flexion method was again resorted to, without any good result however.

The following was his state on admission to Netley:—General health, good: no history of syphilis or rheumatism; family history good, except that his brother died suddenly. The circumference of the affected limb exceeded that of the sound one by half an inch at the seat of disease.

On *May the 2nd* the patient was placed in position in bed, groin shaved and well dusted over with French chalk, the limb slightly everted and flexed. Read's compressor, 3rd series, was adjusted so as to compress the artery over the brim of pelvis, while Carte's tourniquet was placed about the middle of the thigh; these were used alternately, as the skin became painful. Slight pulsation was permitted through the vessel. Pressure maintained from 10 A.M. until 7 P.M. Half diet, no extras.

May 3rd.—Tourniquets again applied at 7 A.M., and kept on until 7 P.M.; the same arrangements adhered to as on the 2nd. Complained of a pricking sensation on the inside of knee, when the instruments were removed.

May 4th.—Instruments re-applied at the same hour and under the same conditions as yesterday. At 6·45 P.M. the pulsation was strong in the tumour; but at 7 P.M. it had *entirely ceased.*

During the treatment considerable pain was caused by the pressure, and the pricking sensation above mentioned continued for some little time.

May 5th.—Tumour smaller, quite hard, and free from pulsation. Circumference of limb increased half an inch (probably from the pressure). Leg wrapped in cotton wool as the temperature was diminished. The tourniquets were applied for 5 hours.

May 8th.—Able to be up and sit at the fire.

In three weeks' time he was allowed to walk about.

The rapid cure in this case may be atrributed to the well-regulated pressure, and to the patient's strict attention to all the directions given for his treatment.

THE following Table gives an Analysis of the Treatment.

Date.	Pressure applied.	Pressure removed.	Instruments used.	Hours per day.
1875.	A.M.	P.M.		
May 2 ..	10 0	7 0	Read's and Carte's alternately	9
„ 3 ..	7 0	7 0	Ditto ditto	12
„ 4 ..	7 0	7 0	Ditto ditto	12
			Total	33

Case 9.—Extirpation of the Eye.

Private C. C., 36th Regiment, aged 26 years, whose antecedent history is good, received a wound in the right eye under the following circumstances:—He was employed as servant in the Serjeants' Mess at Meean Meer, and when in the act of removing a bottle of soda water from a tub in which a number were one exploded, and a fragment of the glass struck him on the right side of his face, wounding the cheek, eyelid, and eye-ball, completely destroying the sight of the right eye.

The following was his condition on admission to Netley on the 30th of April 1875. A scar on right cheek, extending from the Malar process to the middle of lower eyelid; a cicatrix on the sclerotic below the inner margin of the cornea; iris discoloured, pupil irregular, and lens opaque, lower lid contracted and everted, causing the tears to flow over; conjunctiva inflamed. Left eye looks normal, but he suffers a good deal from nocturnal pain in and around it, and its vision is becoming impaired.

On the 11th May he was placed under the influence of ether, and the operation for the removal of the eye-ball performed according to the method recommended by Mr. J. Dixon. Holmes' "System of Surgery," vol. iii., p. 254. He made an excellent recovery, and the vision of the left eye was much improved before he left the hospital on the 5th July 1875.

Case 10.—Loose Cartilage in the Right Knee-Joint removed by Operation under Antiseptic Treatment.

No. 2,309, Private J. B., 1st Battalion, 6th Regiment, aged 23 years; service, 4 years 6 months. According to this man's history he was admitted into hospital on the 12th of July 1874, suffering from a severe sprain in the right knee-joint, which was much enlarged, painful, and contained a large quantity of fluid.

When the swelling subsided it was found that two loose cartilages existed in the joint, one was of considerable size, and the other smaller—the latter being evidently attached to the synovial membrane. Under treatment by pressure the cartilages diminished in size, and then remained stationary, the loose one causing much inconvenience. On arrival at Netley, one large cartilage could be felt, which moved about the joint with great facility and was with difficulty fixed in any one spot. There was a second very small cartilage felt on the inner condyle, but securely fixed.

Measures were adopted to endeavour to cause absorption of both cartilages by fixing the limb on a splint and applying pressure by means of adhesive plaster, pads and bandages; but, from the excessive mobility of the loose cartilages, fixature was found impossible.

On the 7th of June 1875 the patient, having been previously prepared by being placed on low diet, without stimulants, and kept at perfect rest for several days, the loose cartilage was worked down to the inside of the joint over the head of the tibia, where it was firmly held by the left fore-finger and thumb. A valvular incision of about two inches long was then made over the cartilage, which, when reached, shot out of the wound across the operating table.

The wound was now closed with carbolised silk sutures, and dressed with carbolised dressing according to Professor Lister's antiseptic method.

The operation was performed under the carbolised spray, and everything that was likely to touch the wound was carbolised. The limb was kept at perfect rest, and the patient on low diet. His temperature or pulse never rose after the operation, and when the dressings were changed, on the third day, the wound was found quite closed. It was not considered judicious to interfere with the fixed cartilage, and, as he was unfit for the duties of a soldier, he was discharged the Service on the 20th July 1875.

Surgeon F. H. Welch, Assistant Professor of Pathology, has been good enough to furnish the following description of the cartilage:—

Measurements—Length, $\frac{2}{10}$ths inch; breadth, $\frac{7}{10}$ths inch; thickness, about $\frac{15}{100}$ths inch. A somewhat flat oval mass, milk white in colour; firm, but somewhat elastic to the feel; surface nodulated, smooth, and glistening. On section it is found to have an external zone of tissue resembling that described above, with the appearance and microscopical character of articular cartilage, and a core hard but friable, giving all the naked eye and microscopical character of cancellated bone tissue.

Considering the history of the case, with the character of the mass, the inference is that, following the injury, an outgrowth from the articular cartilage of the joint ensued, that this outgrowth subsequently became detached forming a loose cartilage in the joint, and that the central portion of the mass ossified.

Remarks on Cases of Stricture of the Urethra.

The numerical return shews 26 cases of stricture of the urethra, of these 21 had their origin in gonorrhœa, 2 in local injury to the urethra, and 3 in gonorrhœa and injury combined. Seven of the above cases were complicated with scrotal fistula or fistula in perineo, or both. The greatest number of fistulæ in any one case being four, one of which was situated immediately behind the glans penis, one in the left side of the perineum, and two in the scrotum.

One case was complicated with hydrocele and enlargement of one testicle, both of which disappeared, as the stricture was cured without any other treatment.

One case was complicated with vesical calculus, which was discovered after perineal section had been performed. The calculus was removed by converting the wound made for perineal section into that of median lithotomy, the fore-finger of the left hand being conducted along a silver bullet probe into the bladder, and wound dilated with the finger; 60 grains of soft calculus were removed with a forceps, and some *débris* washed out with an irrigator. This case died from suppression of urine and is included in return of perineal section.

Of the position of the 26 stricture cases, 17 were in the membranous portion of the urethra, four within 3 inches, three within 5 inches, and two within 6 inches of the external meatus.

Treatment.—In 18 cases the treatment consisted in gradual dilatation with metal or elastic instruments, all of which were successful, the patients not being discharged from hospital until they could pass for themselves at least a No. 9 instrument.

Five cases were treated with Holt's forcible dilator and dilatation after operation with metal and elastic instruments all being successful. It was remarkable that in some of these cases the passing of an ordinary elastic or metal catheter or sound was immediately followed by a rigor, whereas, after rupturing by Holt's instrument, no such complication followed.

Two cases were treated by perineal section without a conductor, the strictures in both cases being firm, cartilaginous and impermeable ; both unfortunately proved fatal, 19 days after the operation, one from pyæmia, and the other from suppression of urine. In the latter, the whole urinary tract was found extensively diseased.

One case was invalided at his own request, being partially cured by dilatation. The stricture was very obstinate, accompanied by perineal and scrotal fistula, and he was not disposed to submit to further treatment. His health was much impaired.

THE ALEXANDER MEMORIAL FUND.

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Surgeon-Major FREDERICK ROBINSON, M.D., Scots Fusilier Guards.

AT a meeting of the Committee, held on the 8th of April 1876, at the Office of the Army Medical Department, 6, Whitehall Yard, the Alexander Memorial Prize of 50*l.* and a Gold Medal of the value of 10*l.* were awarded to Surgeon-Major J. H. Porter, Assistant-Professor of Military Surgery, for his Essay on "The various forms of Stricture of the Urethra, their causes, consequences, and treatment."

At the same meeting it was determined, that a prize of 50*l.*, and a Gold Medal of the value of 10*l.*, be offered for the best Essay—

"On the influence of drinking-water in originating or propagating enteric "fever, diarrhœa, dysentery, or cholera: to be illustrated, as far as possible, "by instances which have come under the personal observation of the author."

The Essay to be legibly and clearly written, superscribed with a brief motto and accompanied by a sealed envelope similarly superscribed, containing the name and address of the author.

Essays to be despatched to the President, Alexander Memorial Fund Committee, on or before the 31st December 1878.

The competition to be limited to Executive Medical Officers of the Army, on full-pay.

The relative merits of the Essays to be determined by Assessors selected by the Committee.

The prize to be awarded to the writer of the best Essay offered, without reference to the number of competitors, provided the writer has complied with the prescribed conditions.

[2000—4/76—842wo]

ARMY MEDICAL DEPARTMENT

REPORT

FOR THE YEAR 1875.

VOLUME XVII.

Presented to both Houses of Parliament by Command of Her Majesty.

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1877.

TO THE RIGHT HONOURABLE

THE SECRETARY OF STATE FOR WAR.

SIR,

IN accordance with instructions laid down for the conduct of business by the Director-General and Heads of Branches of the Army Medical Department, I have the honour to submit the accompanying Report on the Health of the Army in 1875, and on various matters connected with the duties of the Officers of the Department.

The Statistical, Sanitary, and Medical Reports have been drawn up by the Officers in charge of the respective Branches.

I have the honour to be,
SIR,
Your most obedient
Humble Servant,
W. M. MUIR,
Director-General.

ARMY MEDICAL DEPARTMENT,
December 1876.

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ARMY MEDICAL DEPARTMENT REPORT FOR 1875.

STATISTICAL REPORT.

Troops at Home and Abroad.

The average annual strength of the troops serving at home and abroad in 1875, as computed from the returns received by the Army Medical Department, was 169,235 non-commissioned officers and men (exclusive of the Royal Malta Fencible Artillery, the 1st and 2nd West India Regiments, and the Gun Lascars at Ceylon, and at Hong Kong, which are not recruited at home); the admissions into hospital in this force were 166,919, and the deaths, 2,169. The rates represented by these numbers are for admissions into hospital, 986·3, and for deaths, 12·47 per 1,000 of the average annual strength, the latter calculated on a strength of 173,888, which includes detached men.

The statistics of some of the most important of the results of sickness, in every Command in which the troops were stationed, are exhibited in the following Table :—

1875.

White Troops.	Average Annual Strength.	Admitted into Hospital.	Died.	Sent Home as Invalids.	Discharged as Invalids.	Constantly non-effective from Sickness.
Troops at Home and Abroad ..	**169,235**	**166,919**	**2,169**	**3,277**	**3,351**	**7679·75**
United Kingdom ..	88,147	73,279	870	..	2,394	3568·00
Gibraltar..	4,719	2,930	26	105	58	181·00
Malta	4,506	4,083	47	152	85	194·32
Dominion of Canada ..	1,684	1,109	15	33	22	54·17
Bermuda..	1,902	1,144	21	38	20	62·91
West Indies	1,131	953	10	26	24	47·25
Cape of Good Hope and St. Helena ..	2,741	2,126	20	35	18	103·27
Mauritius	415	549	6	21	1	16·98
Ceylon	1,033	806	14	44	13	47·63
China and Straits Settlements.. ..	1,861	1,779	26	79	27	74·90
Fiji Islands	17	33	..	..	..	2·41
India	59,344	77,373	1,099	2,744	689	3326·91
On Board Ship	1,735	755	15	..	..	..

Troops at Home and Abroad.

1875.—Annual Ratio per 1,000 of Mean Strength.

White Troops.	Admitted into Hospital.	Died.	Sent Home as Invalids.	Discharged as Invalids.	Constantly non-effective from Sickness.	Average Sick-time to each man.	Average duration of each case of Sickness.
						Days.	Days.
Troops at Home and Abroad	986·3	12·47*	19·36	19·80	45·38	16·56	16·79
United Kingdom	831·3	9·36*	..	25·80	40·47	14·77	17·77
Gibraltar	620·9	5·50	22·25	12·29	38·36	14·00	22·55
Malta	906·1	10·43	33·73	18·86	42·21	15·42	17·34
Dominion of Canada	658·6	8·90	19·60	13·06	30·40	11·10	16·85
Bermuda	601·4	11·05	19·93	10·52	33·08	12·07	20·07
West Indies	842·6	8·84	23·00	21·22	41·78	15·25	18·10
Cape of Good Hope and St. Helena	775·6	7·30	12·76	6·57	37·68	13·49	17·73
Mauritius	1322·9	14·46	50·60	2·41	40·92	14·90	11·26
Ceylon	780·3	13·56	42·59	12·68	46·11	16·83	21·57
China and Straits Settlements	955·7	13·97	42·45	14·56	40·28	14·69	15·54
India	1303·8	18·52	46·24	11·61	56·06	20·46	15·69
On Board Ship	431·0	8·63	..	..	..	..	..

* Calculated on strength, including detached men.

10 Years—1865 to 1874.

White Troops.	Aggregate Strength for 10 Years.	Admitted into Hospital.	Died.	Sent Home as Invalids.	Discharged as Invalids.	Constantly non-effective from Sickness.
Troops at Home and Abroad ..	**1,685,806**	**1,754,796**	**24,930**	**32,577**	**37,449**	**76,361**
United Kingdom ..	804,720	670,754	7,594	..	22,965	32,642
Gibraltar	45,105	29,614	375	1,330	846	1,471
Malta	49,717	41,186	708	1,239	824	2,071
Dominion of Canada ..	73,568	47,253	676	1,209	999	2,262
Bermuda	16,423	11,767	247	360	234	581
West Indies	14,552	15,205	256	463	219	681
Cape of Good Hope and St. Helena	34,817	36,776	386	989	735	1,795
Mauritius	9,332	13,246	177	412	151	500
Ceylon	9,285	10,957	177	379	171	503
China and Straits Settlements	13,035	22,206	390	945	405	836
India	578,257	833,237	13,555	25,251	9,900	33,019
On Board Ship	36,995	22,595	389	..	..	..

Troops at Home and Abroad.

White Troops.	1865-74.—Annual Rate per 1,000 of Mean Strength.					Average Sick-time to each man.	Average duration of each case of Sickness.
	Admitted into Hospital.	Died.	Sent Home as Invalids.	Discharged as Invalids.	Constantly non-effective from Sickness.		
						Days.	Days.
Troops at Home and Abroad	**1040·9**	**14·50***	**19·32**	**22·21**	**45·30**	**16·53**	**15·88**
United Kingdom	833·5	9·06*	..	27·39	40·01	14·81	17·76
Gibraltar	656·6	8·31	29·49	18·76	32·61	11·90	18·13
Malta	828·4	14·24	24·92	16·57	41·66	15·20	18·35
Dominion of Canada.. ..	642·3	9·19	16·43	13·58	30·75	11·22	17·47
Bermuda	716·5	15·04	21·92	14·25	35·39	12·91	18·27
West Indies	1044·9	17·59	31·82	15·05	46·80	17·08	16·35
Cape of Good Hope and St. Helena	1056·3	11·12	28·41	20·85	51·55	18·82	17·81
Mauritius	1419·4	18·97	44·15	16·18	53·58	19·56	13·76
Ceylon..	1180·1	19·06	40·82	18·42	54·18	19·77	16·75
China and Straits Settlements	1703·6	29·92	72·49	31·07	66·28	24·19	14·24
India	1441·0	23·44	43·55	17·12	57·10	20·84	14·46
On Board Ship	610·8	10·52	..	..	..	..	..

* Ratios are calculated on a strength which includes all detached men since 1870.

II.—ON THE HEALTH OF THE TROOPS SERVING IN THE UNITED KINGDOM.

Section I.

Sickness and Mortality.

STATISTICAL REPORT.

United Kingdom.

The average annual strength of the non-commissioned officers and men serving in the United Kingdom during the year, calculated from the returns received, was 88,147; the admissions into hospital in this number were 73,279, being in the rate of 831·3 per 1,000 of the strength; the average number of men in hospital daily throughout the year was 3,568, being in the rate of 40·47 per 1,000 of the strength; 783 deaths occurred amongst the men present with their corps, in addition to which 87 deaths occurred amongst men detached, the average number of whom is given in the Adjutant-General's Return as 4,655, the death-rate of the non-commissioned officers and men in 1875 is therefore 9·36 per 1,000 of the strength. The admission-rate is 9·4 lower, the constantly sick-rate is 1·88 higher, and the death-rate is ·57 per 1,000 of the strength higher than the corresponding rate of the preceding year.

The classes and orders of the diseases to which the admissions and deaths were due are shown in the following Table :—

United Kingdom.

Orders.	Average Strength in Weekly Returns, 88,147. Average Strength, including men detached, 92,802.	Admitted into Hospital.	Died.			Ratio per 1,000 of Mean Strength.			
			With the Regiment.	Absent from the Regiment.	Total.	1875.		1869–74.	
						Admitted.	Died.	Admitted.	Died.
	I. General Diseases.								
1	Febrile Group ..	4,083	48	3	51	46·3	·55	53·7	·62
2	Constitutional " ..	12,549	241	33	274	142·4	2·95	152·4	2·82
	II. Local Diseases. Diseases of the—								
1	Nervous System ..	1,237	56	7	63	11·0	·68	11·3	·55
2	Eye	1,486	..	..	..	16·8	..	15·8	
3	Ear	359	..	..	..	4·1	..	3 6	
4	Nose	50	1	..	1	·6	·01	·4	..
5	Circulatory System ..	1,544	117	10	127	17·5	1·37	13·1	1·50
6	Absorbent " ..	1,330	2	..	2	15·1	·02	13·1	·01
7	Ductless Glands ..	9	..	..	..	·1	..	·1	
8	Respiratory System ..	9,053	155	11	166	102·7	1·79	82·3	1·33
9	Digestive " ..	10,485	55	6	61	118·9	·66	101·3	·58
10	Urinary " ..	6,243	27	1	28	70·8	·30	106·2	·28
11	Generative " ..	1,090	..	..	..	12·4	..	12·5	
12	Organs of Locomotion	473	4	..	4	5·4	·04	4·9	·04
13	Cellular Tissue ..	2,127	2	..	2	24·1	·02	21·8	·02
14	Cutaneous System ..	8,996	1	..	1	102·1	·01	97·6	..
	III. Conditions, &c.								
	Debility	1,172	1	1	2	13·3	·02	6·5	·01
	IV. Poisons ..	281	14	2	16	3·2	·17	2·5	·09
	V. Injuries.								
2	Accidental	10,498	48	8	56	119·1	·60	99·8	·50
3	Homicidal	1	1	..	1	·2	·01	·3	·03
4	Self-inflicted	14	7	3	10		·11		·28
5	Judicial	2	1	2	3		·03		·01
	VI. Surgical Operations	18	..	..	..	·2	..	·3	·03
	No appreciable disease	177	1	..	..	2·0	..	1·3	
	Not known	..	1	..	2	..	·02	..	..
	Total	73,279	783	87	870	831·3	9·36	800·8	8·70

General Diseases.—Diseases of this class were less prevalent than in 1875, the decrease being in the rate of 17·1 per 1,000 men, but this is accompanied by an increase in the rate of mortality of ·30 per 1,000 men. The diminished prevalence of disease occurred in both groups of the class, but in each group the rate of deaths is higher.

Local Diseases.—The admission-rates of diseases of the *nervous system*, the *circulatory*, and *respiratory systems*, and of *organs of locomotion*, are higher than the corresponding rates of 1874, the increase is unimportant in all except in that of diseases of the *respiratory system*, in which it amounts to 13·2 per 1,000 men. In those orders in which there is a lower rate than in the preceding year, the decrease is small in every instance. The increased rates of mortality on those of 1874 occur in diseases of the *nervous, absorbent*, and *respiratory systems*, and in diseases of the *organs of locomotion*; the greatest increase being ·20 per 1,000 men in diseases of the *respiratory system*.

Conditions, &c.—*Debility*.—The rate of admissions is a little higher than in 1874.

United Kingdo

Poisons.—The rate of admissions is fractionally higher than that of the preceding year, and the rate of deaths is ·09 higher.

Injuries.—*Accidental.*—The rate of admissions for accidental injuries is 3·0 per 1,000 men higher than that of 1874, and the rate of mortality from them is ·12 per 1,000 men higher.

Self-inflicted Injuries, were fewer than in the preceding year, and the rate of mortality is ·18 per 1,000 men lower than in 1874.

Judicial.—The deaths were three, being two more than in the preceding year.

The creation of a number of Brigade Depots in 1875 involves the necessity of a new distribution of the different classes of stations, in which, for the comparison of the vital statistics of the troops, all garrisons in the United Kingdom have hitherto been grouped, and leads to a reconsideration of the principle on which the grouping was based.

Heretofore all garrisons were arranged in eight groups—namely, Seaports, Dockyards and Arsenals, Camps, Large Manufacturing Towns, London and Windsor, Dublin, and Remaining Stations; the collocation into groups was a matter of difficulty, as no exclusive characterising feature was exhibited by any one of them; thus some of the Dockyards, were also Seaports, as were also some of the stations in the group Large Manufacturing Towns, whilst the group of Remaining Stations—numerically the most important of all—contained some Seaports, Manufacturing Towns, and Inland Towns.

It is believed that no grouping of stations can be devised the principle of which is not open to objection; it is therefore thought to be preferable to take the existing Military Districts for contrast with each other as regards the health of the troops quartered in them; they afford geographical, topographical, and other differences likely to influence the results, and if these are constant, they may perhaps be useful for comparison with the evidence obtained in similar inquiries regarding the civil population.

In the following Tables the sickness and mortality in the different Military Districts are shown:—

Military Districts.	Average Strength.	Admitted into Hospital.	Died.	Average constantly Sick.	Ratio per 1,000 of Mean Strength. Admitted.	Died.	Constantly Sick.
1. Northern	7.142	6,559	90	336·62	918·4	12·60	47·13
2. Eastern	3,820	4,089	54	158·71	1070·4	14·13	41·55
3. Western	5,060	3,966	34	216·30	783·8	6·72	42·75
4. Southern	8.824	6.967	86	375·11	789·6	9·74	42·51
5. Chatham	4,542	2,927	28	133·59	644·4	6·16	29·41
6. South-Eastern ..	7.012	6,276	63	299·56	895·0	8·98	42·72
7. Home	5,529	5,217	42	284·00	943·6	7·60	51·37
8. Woolwich	.180	6,063	72	280·88	981·1	11·65	45·45
9. Aldershot . ..	13,044	11,585	82	597·50	888·1	6·28	45·82
10. North British ..	3.412	2.277	40	114·11	667·4	11·72	33·45
11. Channel Islands ..	1,877	1.337	19	55·76	712·3	10·12	29·71
12. Ireland	21.708	16.016	173	715·37	737·8	7·97	32·95
13. Detached from their Corps	..	..	87	..	..	..	..
	88,147	73,279	870	3567·54	831·3	9·36	40·47

As regards the prevalence of disease, the highest rate, that of the Eastern District, is 426 per 1,000 men in excess of the rate of the lowest, the Chatham District; and with the highest rate of prevalence of disease, the highest death-rate is conjoined in the Eastern; it exceeds the lowest, that of the Chatham

United Kingdom.

District, by 7·97 per 1,000 men, or more than double. There is no obvious reason for such dissimilar results in the two Districts; both are on the east coast of England, and they are conterminous, and the difference of a few miles of latitude could not affect the conditions other than insignificantly. The influence of recent tropical service in raising the sick-rate of a District does not in this instance account for the unfavourable health results in the Eastern, as compared with those of the Chatham, although the fact of a regiment which arrived from India in the end of 1874 having been stationed for part of the year in the former District may have contributed to it. Little importance, however, belongs to such statistics for so short a time as one year.

As different conditions attach to residence in Camps and in Towns, the statistics of the troops at the localities included in the former group of "Camps" are shown in the subjoined Table. They have, of course, been included in the previous Table in the several Military Districts in which they are situated.

	Average Strength.	Admitted into Hospital.	Died.	Average constantly Sick.	Ratio per 1,000 of Mean Strength.		
					Admitted.	Died.	Constantly Sick.
Camps	20,939	18,936	154	924·79	904·3	7·35	44·17

The admissions and deaths in each class and order of diseases are shown in the following Tables :—

United Kingdom.

Class.	Order.	Districts ...	Northern.		Eastern.		Western.		Southern.		Chatham.		South Eastern.		Home.		Woolwich.		Aldershot.		North British.		Channel Islands.		Ireland.	
		Average Strength ...	7,142		3,820		5,060		8,824		4,542		7,012		5,529		6,180		13,041		3,412		1,877		21,708	
			Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
I.	1	*General Diseases.* Sub-division A ...	263	3	250	4	230	1	403	4	322	3	354	1	240	2	467	3	464	2	118	1	70	1	902	23
	2	,, B ...	1,134	29	642	23	697	12	1,114	24	411	9	908	19	1,452	18	951	17	1,993	20	402	19	247	2	2,598	49
II.	1	*Local Diseases.*—Diseases of the Nervous System ...	97	10	37	4	72	4	98	7	56	1	140	3	74	1	90	4	169	6	45	3	21	1	338	12
	2	Eye ...	131	...	107	...	82	...	124	...	50	...	161	...	55	...	84	...	285	...	35	...	12	...	360	...
	3	Ear... ...	32	...	21	...	14	...	34	...	14	...	48	...	9	...	37	...	48	...	11	...	6	...	85	...
	4	Nose... ...	1	...	3	...	9	...	8	...	4	...	1	...	...	...	3	...	10	...	...	...	...	...	11	1
	5	Circulatory System ...	127	13	57	5	83	7	190	8	69	7	155	8	53	10	73	8	336	20	46	5	24	2	331	24
	6	Absorbent ,, ...	176	...	69	1	61	...	109	...	31	...	84	...	103	...	59	...	267	1	15	...	36	...	320	...
	7	Ductless Glands ...	1	...	1	...	1	...	...	...	...	...	3	...	1	...	...	...	...	...	...	..	1	...	1	...
	8	Respiratory System ...	793	20	573	12	417	6	1,004	20	256	7	744	10	668	7	805	19	1,377	14	289	5	87	4	2,035	31
	9	Digestive ,, ...	893	4	526	2	578	...	907	8	487	1	910	8	617	2	881	8	1,774	5	322	2	188	2	2,402	13
	10	Urinary ,, ...	575	2	447	1	361	...	661	3	265	...	409	6	509	1	482	5	957	3	172	2	180	...	1,227	4
	11	Generative ,, ...	129	...	53	...	52	...	96	...	49	...	82	...	87	...	77	...	174	...	39	...	17	...	235	...
	12	Organs of Locomotion ...	40	1	18	...	22	...	39	1	20	...	44	...	37	...	37	...	72	1	7	...	6	...	131	1
	13	Cellular Tissue ...	193	...	77	...	79	...	160	...	102	...	175	...	211	...	102	...	406	...	77	...	42	1	503	1
	14	Cutaneous System ...	872	...	566	...	489	...	802	...	344	...	790	...	463	...	727	...	1,478	1	278	...	153	...	2,034	...
III.		*Debility.* ...	84	...	79	...	58	...	137	1	67	...	195	..	53	...	80	...	206	...	32	...	20	...	161	...
IV.		*Poisons* ...	27	1	3	...	16	1	20	6	4	...	12	...	26	...	58	3	43	1	6	...	11	1	55	1
V.	2	*Injuries.* Accidental ...	979	7	551	2	628	3	1,042	4	369	...	1,053	6	548	1	989	4	1,480	3	380	3	215	5	2,264	10
	3	Homicidal ...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...
	4	Self-inflicted ...	...	...	2		1	...	...	...	1	...	1	1	2	...	2	...	2	4	...	...	...	...	3	2
	5	Judicial ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	2	...
VI.		*Surgical Operations* ...	3	...	...	...	2	...	...	...	...	...	2	...	7	...	1	...	...	...	...	...	...	...	3	...
		No Appreciable Disease ...	9	...	2	...	14	...	19	...	6	...	5	...	2	...	58	...	44	...	3	...	1	...	14	1
		Unknown	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
		Total ...	6,559	90	4,089	54	3,966	34	6,967	86	2,927	28	6,276	63	5,217	42	6,063	72	11,585	82	2,277	40	1,337	19	16,016	173

United Kingdom.

Ratios per 1,000 of Strength.

Class.	Order.	Districts	Northern.		Eastern.		Western.		Southern.		Chatham.		South Eastern		Home.		Woolwich.		Aldershot.		North British.		Channel Islands.		Ireland.	
			Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
I	1	*General* Sub-division A ...	36·8	·12	65·4	1·05	45·5	·20	45·7	·45	70·6	·66	50·5	·14	43·4	·36	75·6	·49	35·6	·15	34·6	·29	37·3	·53	41·6	1·06
	2	*Diseases.* ,, B.	178·8	1·06	168·1	6·02	137·7	2·37	126·2	2·72	90·5	1·08	129·5	2·71	262·6	3·26	153·9	2·75	152·8	1·53	117·8	5·57	131·6	1·07	119·7	2·25
II.	1	*Local Diseases.*—Diseases of the Nervous System ...	13·6	1·40	9·7	1·65	14·2	·79	11·1	·79	12·3	·22	20·0	·43	13·4	·18	14·6	·65	13·0	·46	13·2	·88	11·2	·53	15·6	·55
	2	Eye	18·3	...	28·0	...	16·2	...	14·1	...	11·0	...	23·0	..	9·9	...	13·6	...	21·9	...	10·3	...	6·4	...	16·6	...
	3	Ear	4·5	...	5·5	...	2·8	...	3·8	...	3·1	...	6·8	...	1·6	...	6·0	...	3·7	...	3·0	...	3·2	...	3·9	...
	4	Nose	·1	..	·7	...	1·8	...	·9	...	·9	...	·1	...	...	...	·5	...	·8	...	...	...	...	...	·5	·05
	5	Circulatory System	17·8	1·82	11·9	1·31	16·4	1·38	21·5	·91	15·2	1·54	22·1	1·14	9·6	1·81	11·8	1·29	25·8	1·53	13·5	1·46	12·8	1·07	15·3	1·10
	6	Absorbent ,,	24·6	...	18·1	·26	11·9	...	12·4	...	6·8	...	12·0	...	18·6	...	9·6	...	20·5	·08	4·4	...	19·2	...	14·8	...
	7	Ductless Glands ...	·1	...	·3	...	·2	...	...	...	...	...	·4	...	·2	...	...	...	...	...	...	...	·5	...		
	8	Respiratory System	111·3	2·80	151·3	3·14	82·4	1·19	113·8	2·27	56·4	1·54	106·1	1·42	120·8	1·27	130·3	3·07	105·6	1·07	84·7	1·46	46·3	2·12	93·7	1·43
	9	Digestive ,,	125·0	·56	137·7	·52	114·2	...	102·8	·91	107·2	·22	129·8	1·14	111·6	·36	142·6	1·29	136·0	·38	94·4	·59	100·2	1·07	110·7	·60
	10	Urinary ,,	89·5	·28	117·0	·26	71·4	...	71·9	·34	58·4	...	58·3	·86	92·0	·18	78·0	·81	73·4	·23	50·4	·59	95·9	...	56·5	·18
	11	Generative ,,	18·1	...	13·9	...	10·3	...	10·9	...	10·8	...	11·7	...	15·7	...	12·5	...	13·3	...	11·4	...	9·1	...	10·8	...
	12	Organs of Locomotion	5·6	·14	4·7	..	4·4	...	4·4	·11	4·4	...	6·3	...	6·7	...	6·0	...	5·5	·08	2·1	...	3·2	...	6·0	·05
	13	Cellular Tissue ..	27·0	...	20·1	...	15·6	...	18·1	...	22·5	...	24·9	...	38·2	...	16·5	...	31·1	...	22·6	...	22·4	·53	23·2	·05
	14	Cutaneous System	122·1	..	118·2	...	96·6	...	90·9	...	75·8	...	112·7	...	83·7	...	117·6	...	113·3	·08	81·5	...	81·5	...	93·7	...
III.		*Debility*	11·8	...	20·7	...	11·5	...	15·5	·11	14·8	...	27·8	...	9·6	...	12·9	...	15·8	...	9·4	...	10·6	...	7·4	...
IV.		*Poisons*	3·8	·11	·5	...	3·2	·20	2·3	·68	·9	...	1·7	...	4·7	...	9·4	·49	3·3	·08	1·8	...	5·9	·53	2·5	·05
V.	2	*Injuries.* Accidental	137·0	·98	141·2	·52	124·1	·59	118·1	·45	81·3	...	150·2	·86	99·2	·18	160·0	·65	113·5	·23	111·4	·88	114·5	2·67	104·3	·46
	3	Homicidal	..	...	...	...	...	...	...	...	...	...	..	·14	...	...	...	...	...	...	...	...	...	...	·2	...
	4	Self-inflicted ...	...	...	·5	...	·2	...	..	...	·2	...	·1	·14	·4	...	·3	...	·1	·30	...	...	...	...		·09
	5	Judicial	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·16	...	...	...	...	...	...	·2	...
VI.		*Surgical Operations*	·4	...	...	...	·4	...	...	...	...	...	·3	...	1·3	...	·2	...	...	...	...	...	...	...		
		No Appreciable Disease	1·2	...	·5	...	2·8	...	2·2	...	1·3	...	·7	...	·4	...	9·2	...	3·4	...	·9	...	·5	...	·6	·05
		Unknown	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	·08	...	...	...	...	...	...
		General total	918·4	12·60	1070·4	14·13	783·8	6·72	789·6	9·74	644·4	6·16	895·0	8·98	943·6	7·60	981·1	11·650	888·4	6·28	667·4	11·72	712·3	10·12	737·8	7·97

United Kingdom.

General Diseases.—The highest rate of admissions for diseases in this class is that of the Home District, it is double the rate of the lowest, that of the North British District; the highest rate of deaths, that of the Eastern, is more than fourfold higher than the rate of the lowest, the Channel Islands District. If the two component groups of the class be taken, it is seen that *febrile diseases*, are in a higher rate of prevalence in the Woolwich, Chatham, and Eastern Districts, than in the others, the rates of least prevalence being those of the North British, Aldershot, and Northern Districts, but the combination of the lowest rates of prevalence, and lowest rates of mortality, does not hold except in the case of the Aldershot District; the highest rate of mortality is that of Ireland. Diseases of the *constitutional group*, were in the highest rate in the Home District, and in the lowest rate in the North British District; the rate of deaths from diseases of this group is highest in the Eastern, and lowest in the Channel Islands District.

The rates of admissions and of deaths in the groups of diseases of this class are shown in the following Tables:—

United Kingdom.

		Districts	Northern		Eastern.		Western.		Southern.		Chatham.		South Eastern.		Home.		Woolwich.		Aldershot.		North British.		Channel Isles.		Ireland.	
		Strengths	7,142		3,820		5,060		8,824		4,542		7,012		5,529		6,180		13,041		3,412		1,877		21,703	
			Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Class I.—General Diseases.	Febrile Group.	Eruptive Fevers	18	...	28	1	9	...	62	1	14	1	48	...	15	...	27	...	13	2	13	...	6	1	53	...
		Continued ,, ...	120	2	117	2	139	1	149	1	124	1	174	1	125	2	200	2	287	...	35	1	43	...	507	18
		Paroxysmal ,, ...	49	...	51	...	21	...	156	...	73	...	86	...	8	...	140	...	107	...	30	...	12	...	92	1
		Cholera	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	..	...	1	...
		Influenza	41	...	26	...	39	...	2	...	97	...	24	...	74	...	54	...	25	...	32	...	4	...	202	...
		Erysipelas	19	1	28	1	17	...	26	2	2	...	22	...	15	...	43	1	24	...	4	...	4	...	30	3
		Other Diseases	3	...	...	...	5	...	8	...	12	1	...	...	3	...	3	...	8	...	4	...	1	...	17	1
		Total of Febrile Group	263	3	250	4	230	1	403	4	322	3	354	1	240	2	467	3	464	2	118	1	70	1	902	23
	Constitutional Group.	Rheumatism	389	...	318	1	241	...	418	...	148	...	437	...	291	...	309	...	913	...	163	...	55	...	891	1
		Syphilis	610	...	257	..	372	...	561	...	181	1	344	1	1,044	1	561	...	889	...	179	...	181	...	1,399	3
		Scrofula, Phthisis, &c.	106	26	57	22	69	12	109	24	68	7	100	18	96	15	64	17	144	19	53	17	10	2	268	45
		Scurvy and Purpura	4	...	2	...	...	...	2	...	2	...	1	...	...	...	...	...	1	...	...	...	1	...	2	...
		Anæmia	14	...	2	...	13	...	12	...	12	...	12	...	4	...	15	...	26	...	3	...	...	...	6	...
		Other Diseases	11	3	6	...	2	...	12	...	...	1	14	...	17	2	2	...	20	1	4	2	...	...	32	...
		Total of Constitutional Group ...	1134	29	642	23	697	12	1,114	24	411	9	908	19	1,452	18	951	17	1,993	20	402	19	247	2	2,598	49

United Kingdom

Ratios per 1,000 of Strength.

		Disiricts	Northern.		Eastern.		Western.		Southern.		Chatham.		South Eastern.		Home.		Woolwich.		Aldershot.		North British.		Channel Islands.		Ireland.	
			Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Class I.—General Diseases.	Febrile Group.	Eruptive Fevers	2·5	...	7·3	·26	1·8	...	7·0	·11	3·0	·22	6·9	...	2·7	...	4·4	...	1·0	·15	3·8	...	3·2	·53	2·4	...
		Continued ,, ...	18·2	·28	30·6	·53	27·5	·20	16·9	·11	27·3	·22	24·8	·14	22·6	·36	32·4	·33	22·0	...	10·3	·29	22·9	...	23·3	·82
		Paroxysmal ,, ...	6·9	...	13·4	...	4·1	...	17·7	...	16·0	...	12·3	...	1·5	...	22·6	...	8·2	...	8·7	...	6·4	...	4·3	·05
		Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...
		Influenza	6·2	...	6·8	...	7·7	...	·2	...	21·3	...	3·4	...	13·4	...	8·7	...	1·9	...	9·4	...	2·1	...	9·3	...
		Erysipelas	2·6	·14	7·3	·26	3·4	...	3·0	·23	·4	...	3·1	...	2·7	...	7·0	·16	1·9	...	1·2	...	2·1	...	1·4	·14
		Other Diseases	·4	...	...	...	1·0	...	·9	...	2·6	·22	...	...	·5	...	·5	...	·6	...	1·2	...	·6	...	·9	·05
		Total of Febrile Group	36·8	·42	65·4	1·05	45·5	·20	45·7	·45	70·6	·66	50·5	·14	43·4	·36	75·6	·49	35·6	·15	34·6	·29	37·3	·53	41·6	1·06
	Constitutional Group.	Rheumatism	54·5	...	83·3	·26	47·6	...	47·4	...	32·6	...	62·3	...	52·6	...	50·0	...	70·0	...	47·8	...	29·3	...	41·0	·05
		Syphilis	85·4	...	67·3	...	73·5	...	63·6	...	39·9	·22	49·1	·14	188·8	·18	90·8	...	68·2	...	52·4	...	96·4	...	64·5	·14
		Scrofula, Phthisis, &c.	14·8	3·64	14·9	5·76	13·6	2·37	12·4	2·72	15·0	1·54	14·3	2·57	17·4	2·71	10·4	2·75	11·0	1·45	15·5	4·98	5·3	1·07	12·3	2·07
		Scurvy and Purpura	·6	...	·5	...	...	...	·2	...	·4	...	·1	...	...	...	...	...	·1	...	...	...	·6	...	·1	...
		Anæmia	2·0	...	·5	...	2·6	...	1·3	...	2·6	...	1·7	...	·7	...	2·4	...	2·0	...	·9	...	...	...	·3	...
		Other Diseases	1·5	·42	1·6	...	·4	...	1·3	...	...	·22	2·0	...	3·1	·36	·3	...	1·5	·08	1·2	·59	...	...	1·5	...
		Total of Constitutional Group ...	158·8	4·06	168·1	6·02	137·7	2·37	126·2	2·72	90·5	1·98	129·5	2·71	262·6	3·25	153·9	2·75	152·8	1·53	117·8	5·57	131·6	1·07	119·7	2·26

United Kingdom.

Eruptive Fevers.—The rate of prevalence of fevers of this kind (3·5 per 1,000 men) slightly exceeds that of the preceding year; nearly one-third of the whole number of admissions was on account of vaccination. The highest rate of prevalence is that of the Eastern District, but the actual prevalence was greater in the Southern, and in the South-Eastern Districts, and in Ireland; in the two first named Districts, re-vaccinations mainly contributed to the comparatively large number of admissions. The lowest rate of admissions for eruptive fevers is that of the Aldershot District. There were five admissions during the year for small-pox, three in Jersey, and two in Ireland. Of 22 admissions for chicken-pox, 19 were in the Woolwich District. Admissions for measles occurred in every District except in that of the Channel Islands; the greatest prevalence of the disease was in the Southern District. Admissions for scarlet fever, (100 in all) occurred in every Military District, but the greatest number, and the greatest relative proportion, occurred in the Eastern District, where, in the last three months of the year, the disease prevailed at Colchester Camp.

Continued Fevers.—The rate of admissions for fevers of this nature, in all Districts together, is 23· per 1,000 men, being 1·6 per 1,000 lower than the corresponding rate of the preceding year. The highest rate of admissions is that of the Woolwich District; the highest rate of mortality is that of the Ireland Command.

Typhus Fever.—Two admissions for this fever are returned, both of the illnesses were fatal; one occurred in the North British District, at Paisley, and was that of a man of the 74th Regiment; the other occurred in Dublin, and was that of a man of the 3rd Battalion, Grenadier Guards; in neither instance was an examination of the body made after death.

Enteric Fever.—For all Districts together, the prevalence of this form of fever is in the proportion of 1·03, and the mortality from it in that of ·29 per 1,000 men; the first is fractionally lower, the last is one-third higher, than the corresponding rate of the preceding year. The rate of mortality to cases treated is 296·7 per 1,000. The prevalence of enteric fever in each District is here shown:—

	Northern.	Eastern.	Western.	Southern.	Chatham.	South Eastern.	Home.	Woolwich.	Aldershot.	North British.	Channel Islands.	Ireland.
Admissions for Enteric Fever ..	6	7	1	12	2	2	8	5	..	2	..	46
Deaths from Enteric Fever	2	2	1	..	1	1	2	2	..	..	..	16

Half of the admissions, and more than half of the mortality from enteric fever occurred in Ireland, where less than a quarter of the strength was stationed. The greatly disproportionate prevalence of the disease there, was chiefly occasioned by an outbreak which occurred at Kinsale, in the 1st Battalion, 12th Foot, in September; between the 10th and 30th of the month it occasioned 21 admissions. Several of the men were taken ill at Charles Fort, to which place they had been sent from Kinsale when the outbreak occurred, but no doubt they acquired their illnesses at the latter place. Two men of the regiment also were taken ill at Bantry, where a detachment from Kinsale had been sent in consequence of the outbreak. 25 attacks, and nine deaths, were referable to this short and well-defined house epidemic. All the men attacked were young; the eldest was only 24, the majority did not exceed 20 years of age. The other admissions for enteric fever in Ireland are returned from 14 different stations. One of the men attacked was an inmate of the military prison at Limerick, where, in the beginning of 1874, enteric fever had prevailed.

The only other District in which enteric fever appeared as a localised epidemic was the Southern, in which, at Hilsea, nine men of the F Battery, 16th Brigade, Royal Artillery, all residing in one particular set of rooms in the barracks, were successively attacked. The first man taken ill was admitted into hospital on the 19th of September, and the last on the 31st of October; four men were attacked within 24 hours of each other.

In the Eastern District, at Colchester Camp, there were four admissions for enteric fever in the first months of the year; all were those of recruits for one particular regiment.

Of the admissions for enteric fever in the various Districts, it may be remarked that some (as at Colchester) were those of recruits, or of men just off furlough, &c., whose illnesses were not acquired at the military stations where the cases were treated.

Simple Continued Fever.—The admissions for fevers of this nature are in the rate of 5·1 per 1,000 men. Two deaths are returned as due to simple continued fever.

Febricula.—The prevalence of this affection was in the proportion of 16·8 per 1,000 men.

Paroxysmal Fevers.—The rate of admissions for paroxysmal fevers is 9·4 per 1,000 men, showing a reduction of nearly one-half on the rate of the preceding year. The greatest rate of prevalence of fevers of this nature (ague in all except 35 instances) is that of the Woolwich (22·6); the next is that of the Southern (17·7); the lowest is that of the Home District (1·5). The Woolwich District, which shows the highest rate, combines in itself the two conditions, of residence in it of a large number of men recently arrived from abroad, and that of containing stations—Purfleet, and Tilbury Fort, where malarial fever is endemic. The Southern District, owes its high rate to the first of the two conditions stated. One death is returned as due to remittent fever.

Influenza.—The rate of prevalence of this disease for all groups together is nearly the same as that of the preceding year. It will be seen that the rates of prevalence of this disease differ greatly in the various Districts, that of the Chatham, being much higher than that of the Southern District; the differences are probably referable to the fact, that the numbers being small, the influence of individual views, in the matter of diagnosis, is likely to colour the results.

Erysipelas.—The rate of prevalence of this disease, for all Districts together, is 1·8 per 1,000 lower than the rate of the preceding year; the greatest rate of prevalence is in the Eastern District. 37 admissions were returned in Woolwich Garrison; most of them occurred in the first and second quarters of the year. 16 admissions took place at Colchester Camp, where the prevalence of the disease had no very marked relation to season.

Rheumatism.—Compared with the preceding, there is, in the present year, a fractional reduction in the rate of prevalence of this disease, for all Districts together. The rates of prevalence in the various Districts vary greatly, that of the Eastern, being nearly three times higher than the lowest rate in the Channel Islands District, omitting this District because of its inconsiderable strength, it is more than twice as high as the rate of the Chatham District. The relation of the prevalence of rheumatism to locality in the various Military Districts may perhaps be best determined by taking for comparison the prevalence in them of the acute form only, as chronic, and muscular rheumatism, are probably in many instances due rather to the effects of age, and long service, and to former residence in malarious countries, than to local conditions capable of exciting the phenomena of rheumatism, in persons of susceptible constitution. This discrimination is made in the following Table, the data for which it is believed, refer chiefly to attacks of rheumatism accompanied by fever. The Districts are arranged in the order of the greatest proportional prevalence of acute rheumatism in them:—

United Kingdom.

	Eastern.	Home.	Woolwich.	Northern.	Western.	Aldershot.	Southern.	South-Eastern.	Ireland.	Chatham.	North British.	Channel Islands.
Rate per 1,000 of the strength, of admissions for acute rheumatism ..	34·8	26·6	23·8	19·3	17·2	16·3	14·6	14·0	12·1	11·2	9·4	7·9

The results show that in the present year no constant relation existed between lowest mean temperature, or longest prevalence of cold winds, or greatest degree of moisture, and the prevalence of acute rheumatism in the Districts; if, as experience teaches, the conditions enumerated do usually influence the prevalence of rheumatism in a locality, it is clear that in the present instance they have been of less effect in the causation of the disease, than other conditions affecting the troops; but the number of observations—1,452 in all—is too small to furnish reliable evidence.

Syphilis.—In connection with the reduced number of admissions for syphilis since 1873, which there is reason to believe is consequent on the pecuniary loss now resulting to the soldier when he is under treatment in hospital for primary syphilis, it may be of interest to contrast the relative proportions of the two forms of the disease in the present, and in the preceding year. In 1874 the admissions for primary syphilis, are in the rate of 52·9, and those for secondary syphilis, of 24·5 per 1,000 of the strength. In the present year the rates are 45·9 and 28·7 per 1,000 respectively, showing an increase in the rate of the constitutional form of syphilis of 4·2 per 1,000, equal to about 370 additional admissions.

The new grouping of stations in the present year prevents a comparison of the rates of prevalence of syphilis with those of the groups in the preceding year. Only one—the Home District—is comparable, it being substantially the same as the former group, London and Windsor. In both years it shows the highest rate of prevalence, but there is, in the present, a decrease of 8·7 per 1,000 men on the rate of the preceding year. Chatham is the District which has the lowest rate of prevalence.

In continuation of the statistical information given in the reports of previous years, the admissions for primary venereal sores at certain large stations in the United Kingdom, and their rates per 1,000 of the mean strength, are shown in the following Tables:—

United Kingdom.

Stations under the Act.

Stations.	Strength.	Admitted for Primary Venereal Sores.	Admitted for Gonorrhœa.	Ratio per 1,000 of strength admitted for Primary Venereal Sores.	Ratio per 1,000 of strength admitted for Gonorrhœa.
Devonport and Plymouth	2,575	75	157	29	61
Portsmouth	5,555	169	384	30	69
Chatham, Sheerness, and Gravesend	4,542	75	226	17	50
Woolwich	5,605	330	392	59	70
Aldershot	12,934	600	814	46	63
Windsor	972	40	43	41	44
Shorncliffe	2,695	48	80	18	30
Colchester..	2,248	72	180	32	80
Winchester	957	26	66	27	68
Dover	2,300	63	118	27	51
Canterbury	1,138	14	76	12	67
Maidstone..	138	1	5	7	36
Cork	2,689	57	101	21	38
Curragh	4,258	147	183	35	43
Total of 14 Stations under the Act ..	48,606	1,717	2,825	35	58

Stations *not* under the Act.

Isle of Wight	1,222	109	68	89	56
London	3,897	730	373	187	96
Warley	819	30	70	37	85
Hounslow	660	16	29	24	44
Pembroke Dock	1,218	38	43	31	35
Sheffield	779	68	71	87	91
Manchester	1,068	95	115	89	108
Preston	749	43	54	57	72
Edinburgh	1,222	33	85	27	70
Fermoy	1,200	15	39	12	32
Limerick	903	23	29	25	32
Athlone	818	8	13	10	16
Dublin	4,267	311	370	73	87
Belfast	751	33	46	44	61
Total of 14 Stations *not* under the Act ..	19,573	1,552	1,405	79	72

United Kingdom.

Stations.	Rate of Admissions into Hospital per 1,000 of Mean Strength for Primary Venereal Sores in—								
	1867.	1868.	1869.	1870.	1871.	1872.	1873.	* 1874.	* 1875.
Devonport and Plymouth..	76	66	74	58	50	59	37	36	29
Portsmouth ..	116	86	62	51	41	40	44	48	30
Chatham and Sheerness..	71	63	41	47	65	49	41	33	17
Woolwich ..	88	46	52	43	58	60	60	47	59
Aldershot ..	81	77	63	67	65	62	72	52	46
Windsor ..	58	136	93	67	78	96	84	63	41
Shorncliffe ..	42	77	60	100	30	33	21	14	18
Colchester ..	145	182	85	42	32	55	42	20	32
Winchester ..	52	104	101	61	29	57	27	38	27
Dover	132	111	80	30	24	47	38	37	27
Canterbury ..	119	114	45	152	38	43	20	36	12
Maidstone ..	242	122	128	68	44	57	59	66	7
Cork	72	61	73	68	55	62	61	26	21
Curragh ..	104	85	88	56	35	50	30	46	35
Isle of Wight ..	59	103	129	64	66	57	37	89	89
London ..	163	148	144	160	190	199	185	179	187
Warley ..	74	92	61	55	57	66	22	32	37
Hounslow ..	62	106	85	88	45	90	67	68	24
Pembroke Dock	28	35	51	54	28	27	25	21	31
Sheffield ..	163	107	146	77	126	98	71	49	87
Manchester ..	177	115	160	92	70	98	91	106	89
Preston ..	87	87	172	134	75	114	123	97	57
Edinburgh ..	63	46	60	99	69	43	44	25	27
Fermoy ..	70	47	116	89	33	56	21	10	12
Limerick ..	117	114	54	136	57	100	78	58	25
Athlone ..	85	38	42	44	47	14	14	8	10
Dublin	129	139	180	128	117	165	136	95	73
Belfast	89	56	52	43	61	78	103	64	44

* Stoppage of pay in force.

United Kingdom.

Compared with the results in the preceding year, the group of 14 stations under the Act, shows a reduction in the rate of admissions for primary venereal sores of 7 per 1,000 of the strength, and in the rate of admissions for gonorrhœa a reduction of 4 per 1,000; the contrasted group of 14 stations shows a reduction in the rate of admissions for primary venereal sores of 9 per 1,000 of the strength, and in the rate of admissions for gonorrhœa of 5 per 1,000.

In the following Table the results obtained by a different grouping of stations in the United Kingdom, in respect of the admissions for primary venereal sores, are shown:—

Groups.	Average Annual Strength of the Group.	Admissions into Hospital for Primary Venereal Sores.	Rate per 1,000 of Strength of Admissions for Primary Venereal Sores.
The 14 Stations under the Contagious Diseases Act	48,606	1,717	35
All other Stations	39,541	2,324	59

No admissions for this disease are returned at 13 stations, having together an average annual strength of 1,246 men.

Scrofula and Phthisis.—The most noticeable differences in respect of these diseases are the high rates of prevalence in the Home, and in the North British Districts, and (leaving out of consideration the Channel Islands District), the low rates of the Woolwich, and of the Aldershot Districts; but the admissions for these diseases, as well as the recorded mortality from them, are greatly influenced by the comparative facilities for invaliding in the several Districts.

Scurvy and Purpura.—Amongst the admissions in this group of diseases are four on account of scurvy. They took place at Parkhurst, Jersey, and Dublin; no notices respecting them occur in the reports received from the hospitals at those stations.

LOCAL DISEASES.—*Diseases of the Nervous System.*—The highest rate of prevalence of diseases in this order, is that of the South-Eastern District, it exceeds the lowest rate, that of the Eastern District, by more than half; the excess in the first-named is due to the relatively large number of admissions for epilepsy, and for neuralgia. The highest rate of deaths is that of the Northern District, which is raised chiefly by the occurrence of an unusual number of deaths by apoplexy. Taking all Districts together, the rate of admissions for epilepsy is 4·4 per 1,000 men, showing an increase of ·17 per 1,000 on the corresponding rate of the preceding year.

Diseases of the Eye.—The rate of prevalence of diseases in this order (omitting notice of the Channel Islands District) varied from 9·9 in the Home, to 28· per 1,000 in the Eastern District, but the last-named rate represents only 107 admissions, most of which were on account of conjunctivitis, the greater number occurred at Colchester Camp.

Diseases of the Circulatory System.—The highest rate of admissions, that of the Aldershot District, exceeds the lowest rate, that of the Home District, by 15·2 per 1,000 men, but the death rate of the last, is higher than that of the first named District. Though having the lowest admission rate in the present year, the rate of the Home District is nearly double the corresponding rate of 1874 (assuming that the District represents the former group of London and Windsor). The point of most interest in connection with diseases of this order, is the evidence of arrest of the hitherto progressive rise in the rate of admissions for palpitation; in the present year the rate is 7·7 per 1,000 men, showing a decrease of ·1 per 1,000 on the corresponding rate of 1874.

United Kingdom.

Diseases of the Respiratory System.—The highest rates of admissions and of deaths are conjoined in the Eastern District, the first being nearly threefold higher than the rate of the Chatham District. Of the 578 admissions in the Eastern District, 510 were for bronchitis and 49 for pneumonia; 12 attacks of the last-named disease were fatal.

Diseases of the Digestive System.—The Woolwich District shows the highest rate of admissions, and also the highest rate of deaths. Taking all Districts together, tonsillitis, and dyspepsia, give considerably more than the half of the whole admissions. The disease which caused most deaths was hepatitis, 20 attacks of which were fatal. The deteriorating effect of tropical service on the health of soldiers who have returned from abroad seemingly well, or at least sufficiently well to take all their duties, is apparent for years after their return; the liability of those who have suffered from liver disease, to dangerous recurrences of it, does not soon cease. In the present year, in one of the instances of death from hepatitis, terminating in abscess, the soldier died 5 years after his return from India.

Diseases of the Urinary System.—The rate of admissions for the diseases of this group (which are substantially those for gonorrhœa) varies greatly in the different Districts, that of the Eastern being very high. Compared with the rate of the preceding year in London and Windsor, there is a reduction of 11·7 per 1,000 men in the prevalence of diseases of the urinary system in the Home District, the stations included being nearly the same in both groups.

In the following Table, the admissions into hospital for gonorrhœa, at specified groups of stations in the United Kingdom, are shown:—

Groups.	Average Annual Strength of the Group.	Admissions into Hospital for Gonnorhœa.	Rate per 1,000 of the Strength, of Admissions for Gonnorhœa.
The 14 Stations under the Contagious Diseases Act ..	48,606	2,826	58·1
At 14 *Large Stations* not under the Contagious Diseases Act..	19,573	1,405	71·8
All Stations together not under the Contagious Diseases Act (including the 14 *Large Stations*)	39,541	2,487	62·9

Diseases of the Cutaneous System.—The difference between the highest rate of admissions in the Eastern District, and the lowest in the Chatham District, is 72·4 per 1,000 men. The excess of admissions causing the twofold higher admission rate in the first-named District, was chiefly due to the greater prevalence of ulcers and of boils.

Poisons.—The great difference between the rate of admissions in the Woolwich, and in the Eastern District, and in a lesser degree in those of other Districts, seems to be explicable only on the supposition that diseases due to the effect of alcohol have not been returned in the same classes of diseases in the different Districts. Of the admissions in this class, 166 were due to delirium tremens, 109 to alcohol poisoning, and 6 to poisoning by other substances; one death was due to the inhalation of chloroform.

Accidental Injuries.—The highest admission rate is that of the Woolwich District, and it occurs probably in connexion with the presence in it of a large body of artillerymen, whose duties expose them to a great liability to accidents, both severe, and slight.

The following Table shows the admissions and deaths, and the number invalided in each arm of the service, with the rates per 1,000 of the strength, and the corresponding rates for the 10 years 1865–74:—

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Arms of the Service.	Average Annual Strength.	Admitted into Hospital.	Died in and out of Hospital.	Invalided.	Average Number Daily Sick.	Average Ratio per 1,000 of Strength.				Average sick time to each soldier.	Average duration of each case of sickness.	1865–74.—Annual Ratio per 1,000.		
						Admitted.	Died.	Invalided.	Daily Sick.			Admitted.	Died.	Invalided.
Household Cavalry ..	1,204	770	9	7	31·56	639·5	7·47	5·81	28·70	10·48	16·38	625·5	8·19	15·30
Dragoon Guards and Dragoons ..	10,389	9,422	66	299	467·19	906·9	6·35	28·78	41·93	16·40	18·10	763·5	7·33	28·00
Royal Artillery ..	13,691	11,578	137	313	589·38	845·7	10·01	22·86	43·05	15·71	18·47	876·6	8·88	29·63
*Royal Engineers ..	3,664	..	38	65	..	..	10·37	17·74	..	..	..	..	6·41	14·66
Foot Guards.. ..	5,309	4,549	41	105	244·41	856·9	7·72	19·78	46·04	16·80	19 61	717·0	7·41	23·34
Infantry Regiments..	40,870	30,733	364	1,068	1434·14	752·0	8·90	26·13	35·02	12·82	17·06	722·9	7·85	25·67
Depôt Brigade, R.A. .	2,179	2,422	14	115	109·18	1111·5	6·43	52·78	50·11	18·29	16·45	1062·6	9·28	32·97
*Coast Brigade, R.A.. .	1,130	..	20	16	..	..	17·70	14·15	..	..	..	..	18·54	8·00
Depôts and Brigade Depôts	8,808	7,980	130	471	383·82	906·0	11·76	53·81	43·58	15·91	17·56	892·7	11·11	42·18
*Army Hospital Corps	1,053	..	17	14	..	..	16·14	13·30	..	..	..	..	14·13	15·92
*Army Service ,,	2,853	..	25	24	..	..	8·76	8·41	..	..	..	..	10·05	14·17

* From Returns furnished by the Officers Commanding.

United Kingdom.

Compared with the preceding year, the rate of admissions is higher in every arm except in Depôt Brigade Royal Artillery, and in Infantry Depôts, and Brigade Depôts, the reductions in which counterbalance the increase in the other arms. The rate of deaths is lower than that of the preceding year, for Household Cavalry, Dragoons, and Army Service Corps, but higher for every other arm; (omitting mention of corps of small strengths) the greatest increase, 4·84 per 1,000, is in Royal Engineers; that in Royal Artillery amounts to ·72 per 1,000; that in Infantry to ·84 per 1,000. The invaliding rates of Household Cavalry, Dragoons, Royal Artillery, Infantry, Depôt Brigade Royal Artillery, and Army Service Corps, are lower than those of 1874; the rates of the remaining arms are higher.

In the following Table, to the strength of each arm, one-half of the number of men belonging to it who were placed on the pension list during the year has been added, and to the mortality of the arm, the deaths occurring before the 31st of December amongst the men pensioned from it:—

	1875.			1865–74.
	Average Strength corrected as above.	Deaths of Soldiers and Pensioners.	Ratio of Deaths per 1,000 of Strength.	Ratio of Deaths of Soldiers and Pensioners per 1,000 of Strength.
Household Cavalry	1,223	11	8·99	10·30
Cavalry of the Line	10,559	76	7·19	8·33
Royal Artillery	13,907	148	10·64	10·04
Foot Guards	5,396	51	9·45	9·39
Infantry Regiments	42,135	397	9·42	9·03

Compared with the results in 1874, a higher death rate of soldiers and pensioners combined, is seen in Royal Artillery, and in Foot Guards, a lower one in all other arms. The decrease in the case of Infantry, is ·08 per 1,000 men only, in Cavalry, 1·41 per 1,000.

The classes and orders of diseases by which the admissions, deaths, and invaliding in each arm of the service were caused, are shown in the following Table:—

Admissions, De

		Household Cavalry.			Cavalry.			Royal Artillery.			Foo
	Strength	1,204			10,389			13,691			
Order.	Class of Diseases.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.
	I. *General Diseases.*										
1	Febrile Group...	20	...	...	358	3	2	723	11	1	237
2	Constitutional Group ...	130	6	2	1,687	20	87	1,757	30	71	1,332
	II. *Local Diseases.*										
	Diseases of the—										
1	Nervous System	15	...	3	131	1	36	170	4	49	60
2	Eye	10	...	...	134	...	3	178	...	9	45
3	Ear	...	...	...	35	...	6	52	...	4	9
4	Nose	...	...	...	3	...	...	4	...	...	1
5	Circulatory System	1	...	1	155	12	50	219	20	48	53
6	Absorbent "	13	...	...	212	...	1	211	...	6	77
7	Ductless Glands	...	...	...	...	...	...	1	...	...	2
8	Respiratory System	120	1	...	1,046	11	8	1,422	28	12	611
9	Digestive "	147	2	1	1,146	6	29	1,522	19	28	502
10	Urinary "	48	...	...	830	2	5	915	4	6	452
11	Generative "	10	...	...	210	...	7	202	...	12	68
12	Organs of Locomotion ...	4	...	...	46	1	12	81	...	12	40
13	Cellular Tissue	33	...	...	275	...	2	316	2	3	192
14	Cutaneous System	63	...	...	1,529	...	4	1,488	...	12	389
	III. *Conditions, &c.*										
	Debility	11	...	...	101	...	26	179	2	25	41
	IV. *Poisons*	2	...	...	18	1	...	53	2	...	33
	V. *Injuries.*										
2	Accidental	142	...	...	1,501	7	21	2,029	12	14	395
3	Homicidal	...	...	...	...	...	...	...	...	...	...
4	Self-inflicted	...	...	...	...	2	...	2	2	...	1
5	Judicial	...	...	...	...	...	...	...	1	...	...
	VI. *Surg. Operations* ...	1	...	...	...	...	...	3	...	1	7
	No appreciable disease ...	...	...	...	5	...	...	51	...	...	2
	Cause unknown	...	...	...	...	...	...	...	...	...	...
	Total	770	9	7	9,422	66	299	11,578	137	313	4,549

nd Invaliding in the United Kingdom.

	ntry Regiments.		Depot Brigade, Royal Artillery.			Depots.			Royal Engineer.		Coast Brigade, R.A.		Army Hospital Corps.		Army Service Corps.	
	Died.	Invalided.	Admitted.	Died.	Invalided.	Admitted.	Died.	Invalided	Died.	Invalided.	Died.	Invalided.	Died.	Invalided.	Died.	Invalided.
·8	·66	·03	82·1	...	...	55·8	·57	·11	·55	...	...	...	1·90	...	...	...
·9	2·84	6·95	178·1	1·37	5·50	137·7	5·56	14·08	2·46	6·55	4·42	7·08	7·59	1·90	3·51	2·81
·2	·83	3·55	23·4	·46	8·26	20·1	1·36	5·90	·82	1·63	3·54	1·77	1·90	2·85	·35	·70
·1	...	1·03	11·5	...	1·84	18·6	...	1·25	...	·82	...	...	...	...	...	...
·0	...	·32	6·4	...	1·38	5·3	...	·79	...	...	...	...	...	...	...	·70
·7	·02	·03	1·4	...	...	1·1	...	...	...	...	...	...	...	...	...	...
·3	1·13	5·06	26·1	·92	16·04	28·6	1·82	8·97	2·18	4·09	4·42	·88	...	·95	2·45	·35
·0	...	·05	8·3	...	...	10·7	·23	·23	...	...	...	...	...	...	...	...
·1	...	...	...	...	...	·4	...	·11	...	...	...	...	...	...	...	...
·1	1·71	1·76	85·4	·92	1·38	109·9	2·84	3·18	1·91	1·09	1·77	1·77	·95	...	1·40	·70
·6	·57	1·49	164·3	·92	5·05	144·2	·79	4·88	·55	·82	·89	...	...	...	·35	...
·0	·25	·44	113·3	·92	1·84	79·5	·57	·34	·27	·55	·89	...	·95	...	·35	·70
·0	...	·12	12·8	...	1·84	8·5	...	·23	...	...	...	...	...	...	...	...
·8	·02	·71	6·9	...	1·84	5·3	·11	1·48	...	·82	...	...	...	...	...	·35
·8	...	·07	18·8	...	·46	22·8	...	·23	...	...	...	...	...	...	...	...
·8	·02	·29	153·3	...	1·38	112·9	...	·57	...	·55	...	·88	...	·95	...	...
·7	...	3·52	21·1	...	4·13	23·7	...	9·76	...	·55	...	...	...	6·65	...	2·10
·6	·10	...	4·6	·46	...	2·6	...	...	...	...	...	...	...	...	...	...
·7	·54	·56	172·6	·46	1·84	115·2	·57	1·59	1·36	·27	1·77	1·77	2·85	...	·35	...
	·02	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	·15	·03	·5	...	...	·4	·23	·11	·27	...	...	...	...	...	...	...
	·02	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
·2	...	·12	...	...	...	·1	...	...	...	...	...	...	...	...	...	...
4	...	...	20·6	...	...	2·6	...	...	...	...	...	...	...	...	...	...
	·02	...	...	...	...	...	·11	...	...	...	...	...	...	...	...	...
0	8·90	26·13	1111·5	6·43	52·78	906·0	14·76	53·81	10·37	17·74	17·70	14·15	16·14	13·30	8·76	8·41

United Kingdom.

General Diseases.		Annual Ratio per 1,000 of Mean Strength.						
		Household Cavalry.	Dragoon Guards and Dragoons.	Royal Artillery.	Foot Guards.	Infantry Regiments.	Depôt Brigade, Royal Artillery.	Depôts.
Febrile—								
Eruptive Fevers	Admitted ..	6·6	2·3	1·7	1·5	2·9	13·8	10·3
	Died	..	·10	..	..	·05	..	·11
Continued Fevers ..	Admitted ..	2·5	17·7	25·2	26·7	23·5	23·9	24·5
	Died	..	·10	·58	·57	·44	..	·46
Paroxysmal Fevers ..	Admitted ..	..	5·8	16·6	1·5	7·1	19·7	13·0
	Died	..	..	..	..	..	..	..
Cholera ..	Admitted ..	..	..	·1	..	·1	..	..
	Died	..	..	..	..	..	..	..
Influenza ..	Admitted ..	4·2	6·2	4·6	12·4	6·3	16·5	5·2
	Died	..	..	..	..	..	..	..
Erysipelas ..	Admitted ..	2·5	2·3	3·5	2·3	2·2	5·0	2·4
	Died	..	·10	·15	..	·15	..	..
Other Febrile Diseases ..	Admitted ..	·8	·1	1·1	·2	·8	3·2	·3
	Died	..	..	·07	..	·02	..	..
Total of Febrile Group ..	Admitted	16·6	34·4	52·8	44·6	42·9	82·1	55·7
	Died ..	..	·30	·80	·57	·66	..	·57
Constitutional—								
Rheumatism ..	Admitted ..	45·7	69·4	48·8	42·4	46·0	55·1	58·1
	Died	..	..	..	·19	·02	..	..
Syphilis ..	Admitted ..	49·8	79·6	66·3	189·5	64·2	107·8	55·2
	Died	..	..	..	·19	·07	..	·11
Scrofula, Phthisis, &c.	Admitted ..	8·3	10·1	10·6	15·6	11·8	11·5	21·1
	Died	4·98	1·92	2·12	1·69	2·63	1·38	5·34
Scurvy and Purpura.. ..	Admitted ..	..	..	·2	..	·2	..	..
	Died	..	..	..	..	..	..	..
Anæmia ..	Admitted ..	..	1·6	1·5	1·0	1·1	3·7	1·9
	Died	..	..	·07		..	..	..
Other Constitutional Diseases	Admitted ..	4·2	1·7	·9	2·4	·8	..	1·4
	Died	..	..	..	·38	·12	..	·11
Total of Constitutional Group..	Admitted	108·0	162·4	128·3	250·9	124·1	178·1	137·76
	Died ..	4·98	1·92	2·19	2·45	2·84	1·38	5·56

United Kingdom.

Eruptive Fevers.—Compared with the preceding year, fevers of this nature were in a higher rate of prevalence for Household Cavalry, and for Depôts; in a lower rate for each of the other arms.

Continued Fevers.—The rate of prevalence is lower for all arms than in the preceding year, except Royal Artillery, and Infantry, the excess in the rate of each of which amounts to 2·7 per 1,000 men; the decrease in the rate for Foot Guards is 8·5 per 1,000. With a reduced prevalence, however, a relatively greater mortality from continued fevers occurred in Foot Guards, and in Infantry.

Typhus Fever.—One admission for this disease took place in Foot Guards, and one in Infantry.

Enteric Fever.—The highest rate of prevalence, 2·07 per 1,000 men, is that of Foot Guards, in which arm this disease appeared only in the regiment of Grenadier Guards, each of the three battalions contributed cases, the greatest number being six, in the 3rd Battalion. The prevalence of enteric fever, in Royal Artillery is in the rate of 1·68, and in Infantry in that of 1·12 per 1,000 men.

Simple Continued Fever and Febricula.—The rate of admissions for the two diseases combined is lower than in the preceding year for Cavalry, and for Foot Guards, but is a little higher for Royal Artillery, and for Infantry; the decrease in the rate for Foot Guards amounts to 8·4 per 1,000 men.

Paroxysmal Fevers.—Compared with the preceding year, the prevalence of fevers of this kind is in a higher rate for Cavalry, Royal Artillery, and for Infantry, but as the rates for Depôts are much lower, the results in the two years are nearly balanced. The comparative prevalence of paroxysmal fevers in the various arms is mainly determined, not by the nature of their special duties, but by the proportions in which they consisted of corps recently arrived from tropical countries; in the present year more than half of the admissions for ague in Cavalry were in the 5th Lancers; half of the admissions in Royal Artillery were in the 18th Brigade, and a similar relation is found in Infantry. Attacks of ague in young soldiers who have never served abroad, have been fewer in number than in the preceding year. The Medical Officer of the Depôt Brigade, Royal Artillery, at Sheerness, writing respecting ague, says: "During the past year this disease has been much less frequent, " not only in the garrison, but among the civil population. . . . The cause " of this I am unable to explain. . . . In almost the whole of the (29) " admissions from ague, the men had previously suffered from the same disease " in India or elsewhere."

Erysipelas.—For every arm the rate of admissions is lower than that of 1874. It will be observed that the rate of prevalence of this disease is highest for the Depôt Brigade Royal Artillery, a result found in that arm for five successive years, and suggesting that local conditions may account for it.

Rheumatism.—The rate of admissions for this disease is higher than in the preceding year for Household Cavalry, Cavalry, Foot Guards, and Infantry, and is lower for the remaining arms; the highest rate of prevalence is that of Cavalry.

Syphilis.—The rate of admissions for syphilis is lower for every arm than in 1874, except for Foot Guards and for Depôt Brigade Royal Artillery; the excess in the first-named arm amounts to 13·2, and in the last to 22·5 per 1,000 men.

Scrofula, Phthisis, &c.—The rate of prevalence of diseases in this group is higher than in the preceding year, for every arm excepting Depôt Brigade Royal Artillery, and for Infantry, the rate for the latter of which is the same in both years; the greatest increase—5·6 per 1,000 men, being more than a third of the whole—occurs in Foot Guards; as in the two preceding years, the lowest rate of prevalence is that for Household Cavalry.

As the rates of mortality from diseases in this group, in the various arms, are greatly affected by the comparative amount of invaliding caused by them, the rates from deaths and invaliding combined, are shown in the following Table:—

United Kingdom.

	Loss per 1,000 men by deaths and invaliding from Scrofula and Phthisis combined.
Household Cavalry	5·81
Cavalry	5·49
Royal Artillery	5·33
Foot Guards..	9·42
Infantry	7·00
Depôt Brigade, Royal Artillery	5·51
Depôts	12·94

Compared with the preceding year, the proportions of loss from phthisis, &c., sustained by the different arms, differ only fractionally for Household Cavalry, Royal Artillery, Foot Guards, and Infantry; for Cavalry there is a reduction amounting to 2·69, and for Depôt Brigade Royal Artillery, to 6·25 per 1,000 men. For Depôts, there is an increase of 1·61 per 1,000 men on the rate of 1874.

Local Diseases.—*Diseases of the Nervous System.*—The rate of admissions is higher than that of the preceding year for all arms except Cavalry, and Royal Artillery. Most of the admissions in this order were for epilepsy, and for neuralgia; the prevalence of the first-named disease was greatest in Infantry, the proportion being 4·26 per 1,000 men; one-eighth of the whole number of admissions in the arm, occurred in the 2nd Battalion 17th Foot.

Diseases of the Eye.—The prevalence of diseases of this order was lower for every arm except Household Cavalry, Cavalry, Infantry, than in the preceding year. The greatest number of admissions returned for conjunctivitis is 34 by the 2nd Battalion 18th Foot; the 2nd Battalion 23rd Foot, returns 23 admissions.

Diseases of the Circulatory System.—The rate of admissions for diseases of this order is higher than that of the preceding year, for every arm except Household Cavalry, and Depôt Brigade Royal Artillery; the rate of deaths is lower for every arm except Foot Guards and Depôts. Admissions for functional diseases of the heart are in the following proportions:—Dragoons, 6·64; Royal Artillery, 7·22; Foot Guards, 3·58, and Infantry, 7·76 per 1,000 men. Compared with the preceding year, the proportion for Foot Guards shows an increase of 2·85 per 1,000 men. No admissions for palpitation took place in Household Cavalry in either year.

Diseases of the Respiratory System.—The rate of admissions for diseases in this order, is materially higher than in the preceding year for every arm except Depôt Brigade Royal Artillery; a higher rate of mortality is associated with an increased rate of prevalence in Royal Artillery, Foot Guards, Infantry, and Depôts; and with diminished prevalence, a lower death-rate in Depôt Brigade Royal Artillery, but in Household Cavalry and in Cavalry a lower rate of mortality is found with a higher rate of prevalence.

Diseases of the Digestive System.—The admissions for diseases in this order are in a higher rate of prevalence than in the preceding year, for every arm except Depôt Brigade Royal Artillery and Depôts; the rate of mortality is lower than that of 1874 for Infantry, and for Depôts, but is higher for all other arms except for Foot Guards, in which there was no death from any disease of the digestive system in either year.

Diseases of the Urinary System.—The admissions for diseases in this order are in a lower rate than that of the preceding year for Household Cavalry, Royal Artillery, Foot Guards, Depôt Brigade Royal Artillery, and Depôts; the rate for Dragoons is higher, that for Infantry is the same for both years.

United Kingdom.

Injuries.—*Accidental.*—The rate of admissions for accidental injuries is higher than that of 1874 for every arm except Infantry, in which there is a fractional decrease; the proportion of deaths consequent on injuries is higher for every arm except Infantry and Depôt Brigade Royal Artillery; in Household Cavalry no death was due to accident in either year.

The admissions, deaths, invaliding, and the number of daily sick, in each corps which served in the United Kingdom in 1875 are shown in the following Table:—

Regiments, &c.	Average Annual Strength.	Admitted into Hospital.	Died.			Invalided.	Average number daily sick.	Annual Ratio per 1,000 of strength.				Average sick time to each soldier.	Average duration of each case of sickness.	Stations.
			In Hospital.	Out of Hospital.	Total.			Admitted.	Died.	Invalided.	Daily sick.			
												Days.	Days.	
1st Life Gds.	399	230	2	..	2	3	8·50	576·4	5·01	7·52	21·30	7·78	13·49	Windsor, 4 months; London, 8 months.
2nd ,,	403	267	2	..	2	3	13·50	662·5	4·96	7·44	33·50	12·22	18·45	London, 12.
R. Horse Gds.	402	273	3	2	5	1	12·56	679·1	12·44	2·49	31·21	11·40	16·80	London, 4; Windsor, 8.
Total Household Cavalry	1,204	770	7	2	9	7	34·56	639·5	7·47	5·81	28·70	10·48	16·38	
1st Dn. Gds.	498	262	1	2	3	14	15·00	526·1	6·02	28·11	30·12	11·00	20·90	Ballincollig, 5; Edinburgh, 7; dets. at Cork, Limerick, Fermoy, and Hamilton.
2nd ,,	508	420	2	2	4	13	23·01	826·8	7·87	25·59	45·29	16·53	20·00	Leeds, 7; Newbridge, 5; dets. at Preston, Bury, and Curragh.
3rd ,,	512	292	5	..	5	9	18·19	570·3	9·77	17·22	35·53	12·97	22·74	York, 5; Curragh, 4; Longford, &c., 3.
4th ,,	588	375	3	1	4	19	38·25	637·8	6·8	32·31	65·05	23·74	37·23	Newbridge, 7; Dublin, 5.
5th ,,	560	562	2	1	3	12	20·34	1003·6	5·36	21·43	36·32	13·26	13·21	Dublin, 6; Curragh, 3; Cahir, &c., 3.
6th ,,	589	672	3	1	4	26	24·51	1140·9	6·79	44·14	41·61	15·19	13·31	Shorncliffe, 7; Norwich, 5; dets. at Ipswich and Colchester.

United Kingdom

7th ,,	495	268	3	1	4	9	8·41	543·4	8·08	18·18	17·00	6·20	11·41	Cahir, 5; Ballincollig, 7; dets. at Waterford, Clonmel, Cork, Limerick, Fermoy, &c.
1st Dragoons	604	401	..	3	3	4	20·90	663·9	4·97	6·62	34·60	12·63	19·02	Edinburgh, 6; York, 6; det. at Hamilton.
2nd ,,	607	663	1	..	1	13	30·42	1092·2	1·65	21·42	50·11	18·29	16·75	Brighton, 12; dets. at Woolwich and Hilsea.
5th Lancers	500	668	6	2	8	37	28·45	1336·0	16·00	74·0	56 90	20·77	15·45	Colchester, 6; Aldershot, 6.
6th Dragoons	515	467	3	.	3	4	18·50	906·8	5·83	7·77	35·92	13·11	14·46	Dublin, 6; Dundalk, 6; dets. at Belfast and Belturbet.
7th Hussars	521	541	4	3	7	7	25·00	1038·3	13·44	13·44	47·98	17·51	16·86	Norwich, 7; Manchester, 5; dets. at Ipswich and Liverpool.
8th ,,	599	660	4	..	4	12	18·45	1101·8	6·68	20·03	30·80	11·24	10·20	Longford, 4; Aldershot, 8; dets. at Athlone, Castlebar, Gort, Dunmore.
12th Lancers	596	619	2	2	4	12	33·05	1041·9	6·71	20·13	55·45	20·24	19·42	Manchester, 5; Aldershot, 1; Shorncliffe, 6; det. at Liverpool.
14th Hussars	605	518	1	1	2	28	32·50	905·8	3·31	46·28	53·72	19 61	21·64	Aldershot, 7; Colchester, 5.
17th Lancers	562	587	1	..	1	16	38 18	1035·6	1·78	28·47	67·93	24·80	23·94	Dundalk, 6; Dublin, 6; dets. at Belfast and Belturbet.
19th Hussars	506	311	3	..	3	16	19·48	614·6	5·93	31·62	38·50	14·05	22·86	Hounslow, 7; Leeds, 5; dets. at Hampton Court, Kensington, Preston, and Bury.
20th ,,	516	462	2	..	2	21	20·18	895·3	3·88	40·70	39·11	14·28	15 94	Aldershot, 7; Hounslow, 5; dets. at Hampton Court and Kensington.
21st ,,	508	644	1	..	1	27	34·37	1267·7	1·97	53·15	67·66	24·69	19·48	Aldershot, 12.
Total Cavalry of the Line	10,389	9,422	47	19	66	299	467·19	906·9	6·35	28·78	44·93	16·40	18·10	
Royal Horse Artillery: B Brigade ..	814	593	7	3	10	18	31·63	728·5	12·28	22·11	38·85	14·18	19·47	A, Woolwich, 3⅔; Dorchester, 8. B, Woolwich, 3½; Christchurch, 8½. C, Aldershot, 12. D, Canterbury, 12. E, Christchurch, 3⅔; Aldershot, 8⅓.
D Brigade ..	744	592	3	1	4	23	24·71	795·7	5·38	30·91	33·21	12·12	15·23	A, Dublin, 6⅔; Ballincollig, 5⅓. B, Dublin, 8½; Newbridge, 3½. C, D, Newbridge, 8½; Dublin, 3½. E, Exeter, 3½; Coventry, 8½.

United Kingdom.

Regiments, &c.	Average Annual Strength.	Admitted into Hospital.	Died.			Invalided.	Average number daily sick.	Annual Ratio per 1,000 of strength.				Average sick time to each soldier.	Average duration of each case of sickness.	Stations.
			In Hospital.	Out of Hospital.	Total.			Admitted.	Died.	Invalided.	Daily sick.			
												Days.	Days.	
E Brigade, Rl. Horse Artillery	768	633	4	..	4	11	31·33	824·2	5·21	14·32	10·8	14·89	18·06	A, Dorchester and Woolwich. B, Woolwich and Aldershot. C, Birmingham and Exeter. D, Coventry, Woolwich, and Adershot. E, Exeter.
Riding Establishment	210	238	3	..	3	2	8·88	1133·3	14·29	9·53	42·29	15·43	13·62	Woolwich, 12 months.
Rl. Artillery:														
1st Brigade..	1055	1129	8	2	10	7	94·08	1070·1	9·48	6·63	89·18	32·55	30·42	A, Sheffield, 12. B, Preston, 12. C, Leith Fort, 12. D, Trowbridge, 12. E, Newport and Brecon, 12. F, Ipswich, Aldershot, and Birmingham, 12. G, Sheffield, 12.
3rd ,, ..	941	776	8	4	12	19	34·17	824·7	12·75	20·19	36·31	13·25	16·07	No. 2, No. 3, No. 4, No. 5, No. 6, Shoeburyness, 12. No. 7, ,, ,, No. 8, Dover, 7½; Newhaven and Eastbourne, 5½.

United Kingdom

10th ,, ..	974	480	3	2	5	24	24·53	492·8	5·13	24·64	25·18	9·11	18·65	No. 1, Devonport and Forts, 12. No. 2, ,, ,, ,, No. 3, ,, ,, ,, No. 4, ,, ,, ,, No. 5, ,, ,, ,, No. 6, Pembroke Dock, 12. No. 7, South Hook, 12.
14th ,, ..	1,057	868	5	4	9	35	37·71	825·9	8·51	33·11	35·67	13·02	15·77	A, Dublin, 12. B, Clonmel, 12. C, Limerick, 12. D, Fermoy, 12. E, Athlone, 12. F, Kilkenny, 12. G, Ballincollig, 9; Newbridge, 3.
15th ,, ..	963	849	8	7	15	13	43·87	881·6	15·58	13·50	45·55	16·63	18·86	No. 1, Sheerness, 12. No. 2, Woolwich, 12. No. 3, ,, ,, No. 4, Tilbury and Purfleet, 12. No. 5, Woolwich, 12. No. 6, ,, ,, No. 7, ,, ,,
16th ,, ..	1,169	925	10	1	11	14	37·94	791·3	9·41	11·98	32·46	11·85	14·97	A, Newcastle, 12. B, Hilsea, 12. C, Newcastle, 12. D, } Weedon, 10½; Aldershot, 1½. E, } F, Hilsea, 12. G, Newcastle, 12.
18th ,, ..	1,043	1,365	22	5	27	27	52·77	1308·7	25·89	25·89	50·59	18·47	14·11	A, Woolwich, 12. B, Shorncliffe, 3½; Woolwich, 8½. C, Shorncliffe, 4½; Sheerness, 7½. D, Woolwich, 12. E, ,, ,, F, Fort Rowner, ½; Hilsea, 3½; Woolwich, 8. G, ,, ,, ,,

United Kingdom.

Regiments, &c.	Average Annual Strength.	Admitted into Hospital.	Died.			Invalided.	Average number daily sick.	Annual Ratio per 1,000 of strength.				Average sick time to each soldier.	Average duration of each case of sickness.	Stations.
			In Hospital.	Out of Hospital.	Total.			Admitted.	Died.	Invalided.	Daily sick.			
												Days.	Days.	
21st Brigade	952	828	4	1	5	22	41·28	869·7	5·25	23·11	46·51	16·98	19·53	No. 1, Portsmouth, 12 months. No. 2, Portsmouth, 12. No. 3, Gilkicker, 12. No. 4, Portsmouth, 12. No. 5, Fort Brockhurst, 12. No. 6, Golden Hill, 11; Portsmouth, 1. No. 7, Golden Hill, 12.
22nd " ..	1,018	471	8	1	9	26	17·24	462·7	8·84	25·54	16·93	6·18	13·36	No. 1, Dublin, 12. No. 2, Cork, 12. No. 3, Limerick, 12. No. 4, Guernsey, 12. No. 5, Alderney and Jersey, . No. 6, Jersey and Alderney, . No. 7, Weymouth, 12.
24th " ..	1,013	889	4	1	5	37	66·13	877·6	4·94	36·53	65·28	23·82	27·15	A, Aldershot, 9. (Formed on 1st April.) B, " 12. C, " 12. D, " 12. E, Chichester, 12. F, Aldershot, 12. G, " "

United Kingdom.

25th ,, ..	970	942	7	1	8	35	40·11	971·1	8·25	36·08	41·35	15·09	15·54	A, Woolwich, 3½; Shorncliffe, 8½. B, Woolwich, 4½; Colchester, 7½. C, Exeter, 4½; Devonport, 7½. D, Sheerness, 4½; Colchester, 7½. E, Northampton, 4½; Shorncliffe, 7½. F, Bristol, 12. G, Ipswich, 12.
Total Royal Artillery	13,691	11,578	104	33	137	313	589·38	845·7	10·01	22·86	43·05	15·71	18·47	
Depôt Brig., Rl. Artillery:														
1st Division..	518	519	1	..	1	6	13·71	1001·9	1·93	11·58	26·47	9·66	9·64	Sheerness, 12.
2nd ,, ..	1,661	1,903	10	3	13	109	95·47	1145·7	7·83	63·62	57·48	20·98	18·31	Woolwich, 12.
Total Depôt Brig., Royal Artillery	2,179	2,422	11	3	14	115	109·18	1111·5	6·43	52·78	50·11	18·29	16·45	
Rl. Engineers	1,390	800	5	2	7	36	36·61	575·5	5·04	25·9	26·34	9·61	16·7	Chatham, 12.
,, ,,	750	487	6	1	7	22	31·09	649·3	9·33	29·33	41·45	15·13	23·30	Aldershot, 12.
,, ,,	310	118	4	2	6	1	4·04	380·6	19·36	3·23	13·03	4·76	12·50	Dover, Shorncliffe, Curragh, and Glasgow, 12.
Total of Companies of Royal Engineers from which Returns have been received ...	2,450	1,405	15	5	20	59	71·74	573·5	8·16	24·08	29·28	10·69	18·63	

United Kingdom.

Regiments, &c.	Average Annual Strength.	Admitted into Hospital.	Died.			Invalided.	Average number daily sick.	Annual Ratio per 1,000 of strength.				Average sick time to each soldier.	Average duration of each case of sickness.	Stations.
			In Hospital.	Out of Hospital.	Total.			Admitted.	Died.	Invalided.	Daily sick.			
												Days.	Days.	
Gren. Gds.,														
1st Bn. ..	742	540	5	2	7	8	24·73	727·8	9·43	10·78	33·33	12·16	16·72	London, 3 months; Curragh, 5½ months; Dublin, 3½ months.
2nd Bn. ..	740	701	5	1	6	23	35·06	947·3	8·11	31·08	47·38	17·29	18·25	London, 6; Windsor, 6.
3rd Bn. ..	745	918	7	..	7	8	33·10	1232·2	9·40	10·74	44·43	16·22	13·16	Dublin, 3; Aldershot, 1; London, 8.
Coldm. Gds.,														
1st Bn. ..	776	576	..	1	1	15	36·85	742·3	1·29	19·33	47·49	17·33	23·35	London, 12.
2nd Bn. ..	766	577	8	..	8	21	37·07	753·3	10·44	27·42	48·42	17·66	23·45	London, 12.
Scots F. Gds.,														
1st Bn. ..	762	645	5	2	7	15	39·75	846·5	9·19	19·69	52·17	19·04	22·49	London, 9; Windsor, 3.
2nd Bn. ..	778	592	2	3	5	15	37·85	760·9	6·43	19·28	48·65	17·76	23·34	Windsor, 4; London, 8; dets. at Aldershot, Warley, and Gravesend.
Total of Foot Guards ...	5,309	4,549	32	9	41	105	244·41	856·9	7·72	19·78	46·04	16·80	19·61	
Infantry:														
1st Foot, 1st Bn.	518	252	1	1	2	12	17·77	486·5	3·86	23·17	34·38	12·52	25·74	Edinburgh, 7; Fort George, 5; dets. at Greenlaw, Ballater, and Dundee.
2nd Foot, 2nd Bn.	588	427	3	..	3	12	36·44	726·2	5·10	20·41	61·97	22·62	31·15	Dublin, 12.

United Kingdom.

3rd Foot, 2nd Bn.	567	337	6	1	7	11	14·61	585·5	12·35	19·40	25·77	9·41	16·06	Limerick, 6; Curragh, 2; Mullingar, 4.
4th Foot, 2nd Bn.	598	267	1	..	1	6	8·69	448·2	1·67	10·03	14·53	5·30	11 83	Cork, 5; Curragh, 2; Athlone, 5; dets. at Castlebar, Ballina, Ballinrobe, & Westport.
5th Foot, 2nd Bn.	573	422	5	1	6	7	13·02	736·5	10·47	12·22	22·72	8·29	11·26	Jersey, 5½; Aldershot, 6½.
6th Foot, 2nd Bn.	553	385	3	2	5	2	22·44	696·2	9·04	3·62	40·58	14·81	21·27	Guernsey, 6; Aldershot, 6; det. at Alderney.
7th Foot, 1st Bn.	602	563	8	..	8	21	22·43	935·2	13·29	34·88	37·26	13·60	14·54	Dover, 6; Aldershot, 1; Colchester, 5.
8th Foot, 2nd Bn.	570	448	1	1	2	10	17·85	786·0	3·51	17·54	31·32	11·43	14·54	Cork, 4; Fermoy, 5; Curragh, 3; dets. at Carlisle Fort, Youghal, and Mitchelstown.
9th Foot, 1st Bn.	621	659	6	2	8	17	22·86	1061·2	12·88	27·38	36·81	13·44	12·66	Pembroke Dock, 6; Aldershot, 6.
10th Foot, 2nd Bn.	612	467	4	..	4	20	38·91	763·1	6·54	32·68	63·58	23·21	30·41	Colchester, 6; Aldershot, 6.
11th Foot, 2nd Bn.	615	532	4	2	6	14	23·22	866·7	9·76	22·76	37·76	13·78	15·90	Devonport, 6; Aldershot, 6.
12th Foot, 1st Bn.	659	339	11	1	12	5	17·21	514·4	18·21	7·59	26·11	9·53	18·53	Kinsale, 10; Cork, 2; dets. at Camden Fort, Bantry, Bandon, and Youghal.
13th Foot, 2nd Bn.	704	505	10	2	12	4	23·97	717·3	17·05	5·68	34·05	12·42	17·32	Belfast, 3; Glasgow, 9; dets. at Carrickfergus, Ayr, and Stirling.
14th Foot 2nd Bn.	568	522	4	1	5	6	25·66	919·0	8·80	10·56	45·18	16·49	17·34	Aldershot, 7; Devonport and Plymouth, 5.
15th Foot, 1st Bn.	593	554	2	1	3	31	26·44	934·2	5·06	52·28	44·58	16·27	17·60	Aldershot, 12.
15th Foot, 2nd Bn.*	81	49	1	..	1	1	2·38	583·3	11·90	11·90	28·33	1·03	17·73	Gosport, 1. Embarked for India.
16th Foot, 1st Bn.	590	533	2	1	3	10	24·83	903·4	5·08	16·95	42·08	15·36	17·00	Plymouth, 6; Aldershot, 6.
16th Foot 2nd Bn.	814	515	4	..	4	32	26·14	645·7	4·74	37·91	30·97	11·3	17·51	Chatham, 12; dets. at Gravesend and Upnor Castle.

* From 1st January to 2nd February only.

United Kingdom.

Regiments, &c.	Average Annual Strength.	Admitted into Hospital.	Died.			Invalided.	Average number daily sick.	Annual Rate per 1,000 of strength.				Average sick time to each soldier.	Average duration of each case of sickness.	Stations.
			In Hospital.	Out of Hospital.	Total.			Admitted.	Died.	Invalided.	Daily sick.			
												Days.	Days.	
17th Foot, 2nd Bn.	656	425	1	..	1	18	26·39	617·9	1·52	27·11	40·23	11·68	22·66	Athlone, 5 months: Curragh, 7 months; dets. at Ballina, Tuam, Castlebar, Ballinrobe, Ballaghadereen, and Newport.
18th Foot, 2nd Bn.	580	550	3	..	3	29	23·93	918·3	5·17	50·00	41·26	15·66	15·88	Shorncliffe, 5½; Aldershot, 1; Colchester, 5½.
19th Foot, 1st Bn.	605	314	10	..	10	7	22·11	368·6	16·53	11·57	36·55	13·34	23·16	Chester, 7; Sheffield, 5; dets. at Liverpool, Isle of Man, Weedon, and Tynemouth.
20th Foot, 2nd Bn.	599	689	6	2	8	5	35·63	1150·2	13·36	8·35	59·18	21·71	18·88	Preston, 6¼; Manchester, 5¾.
21st Foot, 2nd Bn.	552	384	6	2	8	10	21·27	695·7	14·49	72·16	43·97	16·05	23·07	Aldershot, 7; Fort Widley, 5.
22nd Foot, 1st Bn.	561	527	7	1	8	20	24·50	939·4	14·26	35·65	43·67	15·96	16·97	Manchester, 6½; Fleetwood, 5½; det. at Isle of Man.
23rd Foot, 1st Bn.	616	328	3	..	3	23	26·57	532·5	4·87	37·34	43·13	15·73	29·57	Aldershot, 9; Cork, 3.
24th Foot, 2nd Bn.	533	414	2	1	3	13	17·52	833·0	5·63	21·39	32·87	12·0	14·4	Aldershot, 7; Dover, 5.
25th Foot, 1st Bn.*	719	492	1	..	1	11	18·31	684·3	1·39	15·3	25·47	9·3	13·59	Buttevant, 9½; dets. at Cork and Spike Island. Embarked for India.
26th Foot† ..	554	457	11	1	12	31	24·91	825·0	21·66	55·96	44·96	16·41	19·89	Arrived from India. Portsmouth, 11¼; dets. at Browndown and Fort Tipnor.
27th „ ..	716	470	11	..	11	20	25·40	656·4	15·36	27·93	35·47	12·95	19·73	Enniskillen, 6; Londonderry, 6; dets. at Boyle, Curragh, Drogheda, Sligo, and Dublin.
29th „ ..	591	397	6	..	6	9	17·53	668·4	10·10	15·15	29·51	10·77	16·12	Dublin, 6; Jersey, 6.

United Kingdom.

30th ,, ..	540	374	6	1	7	6	20·26	692·6	12·96	11·11	37·52	13·69	19·77	Portsdown Hill Forts, 5¾; Aldershot, 1¼; Chester, 5; dets. at Liverpool and Weedon.
33rd ,, ‡ ..	626	321	2	..	2	17	9·06	512·8	3·19	27·16	14·47	5·28	10·30	Fermoy, 3¾; Cork, 6; dets. at Tralee, Mitchelstown, Haulbowline, Carlisle Fort, and Youghal. Embarked for India.
34th ,, § ..	478	294	..	1	1	15	10·73	615·1	2·09	31·38	22·45	8·19	13·32	Kilkenny, 5; Cork, 4; dets. at Carrick-on-Suir, Clonmel, Duncannon Fort, Dungarvon, Waterford, and Kinsale. Embarked for India.
35th ,, ‖ ..	512	586	2	1	3	12	not stated	1144·6	5·86	23·44	..	..	..	Curragh, 5¾; Dublin, 3¾. Embarked for West Indies.
36th ,, ¶ ..	19	21	..	..	..	..	·52	1105·3	..	..	27·37	9·94	9·04	Arrived from India. Devonport, 11 days.
37th ,, ** ..	531	380	4	..	4	6	23·47	715·6	7·53	11·30	44·20	16·17	22·67	Arrived from India. Gosport, 11¼.
38th ,, ..	624	679	3	1	4	35	32·00	1086·6	6·41	56·09	51·28	18·72	17·23	Aldershot, 7; Fort Rowner, 5; dets. at Gosport, Fort Fareham, and Fort Wallington.
41st ,, †† ..	405	364	6	1	7	16	15·80	898·8	17·28	34·57	39·51	14·24	15·84	Arrived from India. Shorncliffe, 9.
46th ,, ..	608	290	1	1	2	12	11·10	477·0	3·20	19·74	18·26	6·67	13·97	Birr, 5; Curragh, 1; Limerick, 6.
47th ,, ..	594	398	2	..	2	21	26·80	670·0	3·37	35·35	45·12	16·47	24·58	Aldershot, 12.
49th ,, ‡‡ ..	527	528	8	3	11	17	21·56	1001·9	20·87	32·26	40·91	14·93	14 90	Arrived from India. Isle of Wight, 11½.
50th ,, ..	559	408	1	..	1	11	23·65	729·9	1·79	19·68	42·31	15·44	21·16	Dublin, 7; Curragh, 1½; Birr, 3½; det. at Nenagh.
52nd ,, ..	619	455	3	1	4	18	27·62	735·1	6·46	29·08	44·62	16·29	22·16	Portsmouth, 12.
53rd ,, §§ ..	483	322	4	..	4	2	9·04	666·7	8·28	4·14	18·72	6·83	10·25	Arrived from Bermuda. Templemore, 8; Curragh, 2½; dets. at Tralee and Carlisle Fort.
58th ,, ..	590	312	2	..	2	17	22·71	528·8	3·39	28·81	38·49	14·04	26·57	Portsmouth, 3; Gosport Forts, 8; Aldershot, 1.
60th ,, 3rd Bn.	595	362	4	1	5	19	18·00	608·4	8·4	31·95	30·25	11·04	18·15	Chatham, 11; Aldershot, 1.
60th ,, 4th ,,	628	453	1	..	1	8	19·48	721·3	1·59	12·74	31·02	11·32	15·70	Devonport, 7; Dublin, 5.

* From 1st Jan. to 12th Oct. only.
† From 21st Jan. to 31st Dec. only.
‡ From 1st Jan. to 28th Oct. only.
§ From 1st Jan. to 28th Sept. only.
‖ From 1st Jan. to 16th Oct. only.
¶ From 20th to 31st Dec. only.
** From 21st Jan. to 31st Dec. only.
†† From 1st April to 31st Dec. only.
‡‡ From 13th Jan. to 31st Dec. only.
§§ From 10th Feb. to 31st Dec. only.

United Kingdom.

Regiments, &c.	Average Annual Strength.	Admitted into Hospital.	Died.			Invalided.	Average number daily sick.	Annual Rate per 1,000 of strength.				Average sick time to each soldier.	Average duration of each case of sickness.	Stations.
			In Hospital.	Out of Hospital.	Total.			Admitted.	Died.	Invalided.	Daily sick.			
												Days.	Days.	
61st Foot ..	581	481	3	1	4	7	14·60	827·9	6·88	12·05	25·13	9·17	11·08	Curragh, 4 months; Dublin, 1¾ months; Guernsey, 6¼ months; det. at Alderney.
64th „ ..	590	567	1	1	2	23	26·60	961·0	3·39	38·98	15·10	16·45	17·12	Glasgow, 4; Portsmouth, 7; Aldershot, 1; dets. at Stirling and Dunbar.
75th „ *..	464	196	1	..	1	4	8·06	422·4	2·16	8·62	17·37	6·34	15·01	Arrived from Cape. Newry, 9; dets. at Newtownards, Armagh, Drogheda, and Monaghan.
77th „ ..	604	340	5	..	5	18	13·09	562·9	8·28	29·80	21·67	7·91	14·05	Chatham, 5¾; Aldershot, 1; Woolwich, 5¼; dets. at Gravesend and Sheerness.
78th „ ..	547	332	2	..	2	8	15·50	606·9	3·66	14·63	28·34	10·34	17·01	Aldershot, 7; Dover, 5.
79th „ ..	567	477	4	..	4	14	24·19	841·3	7·05	24·69	42·66	15·57	18·51	Aldershot, 7; Edinburgh, 5; det. at Greenlaw.
82nd „ ..	580	380	4	2	6	25	18·47	655·2	10·35	43·10	31·84	11·62	17·74	Shorncliffe, 9½; Buttevant, 2½; det. at Cork Harbour Forts.
84th Foot ..	581	497	3	1	4	16	28·83	855·4	6·88	27·54	19·62	18·11	21·17	Aldershot, 12.
86th „ †..	527	279	10	..	10	9	13·97	529·4	18·98	17·08	26·51	9·67	18·28	Arrived from the Cape. Fermoy, 9¼; det. at Mitchelstown and Spike Island.
88th „ ..	612	624	6	3	9	21	25·07	1019·6	14·71	34·31	10·96	14·95	14·66	Colchester, 5½; Aldershot. 1; Preston, 5½.
90th „ ..	534	444	3	1	4	8	20·68	831·5	7·49	14·98	38·73	14·14	17·00	Dover, 6½; Dublin, 3¾; Curragh, 2¼.
91st „ ..	538	385	8	1	9	10	16·78	715·6	16·73	18·59	31·19	11·38	15·91	Newry, 3; Curragh, 9; dets. at Armagh and Monaghan.
93rd „ ..	566	511	4	1	5	9	20·16	955·8	8·83	15·90	35·62	12·00	13·60	Woolwich, 6¾; Shorncliffe, 5¼; det. at Tower of London.
94th „ ..	603	437	5	..	5	5	15·60	724·7	8·29	8·29	25·87	9·14	13·03	Curragh, 3; Belfast, 9; det. at Carrickfugus.

95th ,, ..	574	351	..	4	4	23	13·39	611·5	6·97	40·07	23·33	8·51	13·92	Fleetwood, 6; Pembroke Dock, 6; det. at Newport.
96th ,, ..	562	514	9	1	10	33	20·33	914·6	17·79	58·72	36·17	13·20	14·44	Warley, 3; Colchester, 9.
99th ,, ..	569	260	8	..	8	4	9·06	456·9	14·06	7·03	15·92	5·81	12·73	Fort George, 7¼; Curragh, 4¾; dets. at Aberdeen, Dundee, and Ballater.
100th ,, ..	563	450	4	1	5	2	12·18	799·3	8·88	33·55	21·63	7·90	9·88	Mullingar, 6; Curragh, 1½; Kilkenny, 4½; dets. at Sligo, Trim, Boyle, Navan, Waterford, Duncannon, Carrick-on-Suir, Clonmel, Dungarvon.
102nd ,, ..	620	353	5	1	6	9	16·71	572·0	9·68	11·52	26·95	9·84	17·28	Portland, 12; det. at Marchwood.
103rd ,, ..	615	492	2	..	2	18	24·46	804·9	3·25	29·27	39·77	14·52	18·15	Newport, 6; Devonport, 6; dets. at Fort Popton and at Pembroke Dock.
104th ,, ..	528	437	3	3	6	39	22·20	827·7	11·36	73·86	42·05	15·35	18·54	Dover, 12.
105th ,, ..	570	605	6	2	8	16	30·14	1061·4	14·03	28·07	52·88	19·30	18·18	Sheffield, 5¾; Aldershot 6¼; det. at Tynemouth.
106th ,, ..	544	548	7	..	7	12	25·71	1007·3	12·87	22·06	47·26	17·25	17·12	Isle of Wight, 6; Aldershot, 6.
Rifle Brig., 1st Bn.	579	341	6	..	6	5	13·09	583·9	10·36	8·64	22·61	8·25	14·01	Winchester, 11; Aldershot, 1.
Rifle Brig., 3rd Bn.	570	542	5	1	6	51	21·83	950·9	10·53	89·47	38·30	13·98	14·70	Aldershot, 6¾; Chatham, 5¼.
Total Infantry Regiments	40,870	30,733	306	58	364	1068	1434·44	752·0	8·90	26·13	35·02	12·82	17·06	
Depôts and Brigade Depôts	8,808	7,980	114	16	130	474	383·82	906·0	14·76	53·81	43·58	15·91	17·56	

* From 1st April to 31st December only.

† From 27th March to 31st December only.

United Kingdom.

The health of the Household Cavalry was not materially different to that of the preceding year; it compares favourably with other arms in all the results of sickness, except in having a rather higher death rate than that of Cavalry. The death rate of the Royal Horse Guards exceeds the average; but this is probably counterbalanced by its low invaliding rate; of the deaths in the regiment, three were due to phthisis.

In Cavalry, no regiment unites all the most favourable results; as in 1874, the 1st Dragoon Guards shows the lowest admission rate, and also a favourable, though not the lowest death rate, but the evidence of exceptionally good health of the corps is not shown in the invaliding rate, which is high, and (probably in consequence of the comparatively large number of invalids) the average duration of each case of sickness exceeded the average, and was nearly double that of the 8th Hussars, the regiment which shows most favourably in this important respect. The highest admission, death, and invaliding rates are conjoined in the 5th Lancers, which regiment returned from India in December in the preceding year; although the evidence of recent tropical service is found in the occurrence of admissions for ague, dysentery, diarrhœa, and hepatitis, they were inconsiderable in number, compared with those for rheumatism, bronchitis, and the results of accidents. Of the deaths, two (being one from dysentery and one from hepatitis) were attributable to residence in India. The 21st Hussars, which returned from India in 1873, has, next to the regiment noted above, the highest admission rate in the year, and also the highest invaliding rate. The influence of recent service abroad is shown in this regiment also, in the admissions for dysentery, diarrhœa, and hepatitis, but in point of number they were unimportant, the excess of sickness in the regiment being due chiefly to venereal diseases, diseases of the heart, and of the skin, and to accidents. It will be noticed that the average duration of each case of sickness in the 4th Dragoon Guards was more than double that of the average of Cavalry; no mention is made in the report of the Medical Officer of the causes which conduced to this very long average stay of the men in hospital.

In Royal Artillery, the various results of sickness are so distributed, and one so balances another, that no comparative estimate can be formed as to the health of the different brigades.

In Foot Guards, a comparison of results with those in Infantry, shows a lower death rate, and a lower invaliding rate, but in other respects the results for this arm are unfavourable; the rate of admissions is much more considerable, and, judging by the longer average stay of the men in hospital, the cases of sickness were of greater average severity than in Infantry. Compared with each other, the different battalions of Foot Guards, show no great differences (with the exception, perhaps, that the 3rd Battalion of the Grenadier Guards had the least favourable health); but for the most part a low rate in one result of sickness is associated with, and for the purpose of comparison is balanced by, a comparatively high rate in another.

In Infantry, the highest rate of admissions is that of the 2nd Battalion, 20th Regiment, which is not very far from three-fold higher than the lowest rate, and exceeds the average rate of the arm by 398·4 per 1,000 men. The average stay of sick men in hospital also exceeded that of the average of the arm. The death rate of the regiment is high, but this feature is lessened in importance by the low invaliding rate. The sickness in the 2nd Battalion, 20th Regiment, was raised by the unusually large number of attacks of venereal disease, of bronchitis, and of dyspepsia. The lowest admission rate (taking only regiments which served in the United Kingdom for a whole year) is that of the 46th Foot, and with this is associated a low death rate. The highest death rate of any regiment which served in the United Kingdom for the whole year, is that of the 96th, which is nearly twice the average rate for the arm. Of the deaths in this corps, five were due to pneumonia, except one, they all occurred in the month of March, the other death from this disease took place in April. A death from enteric fever occurred at the same place (Warley) where the four deaths from pneumonia happened. The lowest death rate of any regiment which served for the whole year in the United Kingdom, is that of the 2nd

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Battalion, 17th, but the rate is only fractionally lower than that of the 2nd Battalion of the 4th Foot, with which, in the latter battalion, a very low invaliding rate is associated. The highest invaliding rate is that of the 3rd Battalion of the Rifle Brigade; it is three-fold higher than the average rate for the arm, and exceeds the lowest rate, that of the 100th Foot, by 85·92 per 1,000 men. The 2nd Battalion, 2nd Foot, shows the highest average of duration of cases of sickness; each sick man of this battalion remained in hospital, on an average, three times longer than the sick of the 100th Foot, if the returns of the last-named corps show correctly its average number of daily sick, a reservation necessary to be made, owing to the large number of small detachments furnished by the 100th. Taking all the results of sickness as indications for guidance in estimating the degree of health of the various regiments during the year, the most favourable was that of the 2nd Battalion, 4th Foot; in it are united more of the lowest rates than in any other.

The health results in regiments (of all arms) which returned from India during the year (taking those only which served for the greater part of the year in the United Kingdom) are grouped separately in the following Table:—

Strength.	Admitted.	Died.	Invalided.	Average number Daily Sick.	Annual Rate per 1,000 of Strength.				Average Sick Time to each Soldier.	Average duration of each case of Sickness.
					Admitted.	Died.	Invalided.	Daily Sick.		
									Days.	Days.
3,560	3,762	69	134	166·96	1056·7	19·38	37·64	46·90	17·12	16·20

The 75th and 86th Regiments, which returned from the Cape of Good Hope Command in the year, show good results as regards health in every particular except that the death-rate and average duration of sickness of the last named regiment are high.

Relation of Admissions into Hospital, to Age.

The relative liability of soldiers of different ages to suffer from sickness is a matter of more than speculative interest; to determine it, returns have been received which show the admissions into hospital, in relation to the ages of those attacked, amongst 81,457 of the non-commissioned officers and men serving in the United Kingdom, and they may be taken as fairly representing the results accruing in the whole of the force.

The numbers of men in different ages, arranged in quinquennial periods, and the numbers of admissions into hospital for sickness in each class, and the rates per 1,000 of the strength of each class, are shown in the following Table:—

	Under 20.		20 and under 25.		25 and under 30.		30 and under 35.		35 and under 40.		40 and upwards.		Total.	
	Strength.	Admitted into Hospital.	Strength	Admitted into Hospital.	Strength.	Admitted into Hospital.	Strength.	Admitted into Hospital.	Strength.	Admitted into Hospital.	Strength.	Admitted into Hospital.	Strength.	Admitted into Hospital.
	12,771	12,801	27,888	27,581	14,001	9,501	10,575	5,502	12,772	6,552	3,444	2,681	81,457	64,618
Rate per 1,000 of strength	1002·3		989·0		678·6		520·2		513·0		778·4		793·3	

United Kingdom

The results arrived at in the analysis of the amount of sickness, according to age (taking the admissions into hospital as the equivalent of this), are in harmony with the ascertained results relating to the sickness of certain classes of the civil population. Mr. Neison, who investigated the subject of the sick time of the members of some Friendly Societies, states that "the " highest ratio of sickness is sometimes found associated with a favourable " rate of mortality." This is precisely what is shown as regards soldiers, amongst whom the amount of sickness is in inverse proportion to that of mortality. The highest rate of sickness is that of the group of ages under 20, the same which gives the lowest rate of deaths; and the rate of sickness falls in each successive group of ages, whilst the rate of deaths regularly rises, until 40 and upwards, is reached; in this group (perhaps on account of the disturbing influence of the invaliding which takes place at this age) the association of the lowest rate of sickness, and the highest rate of deaths is broken, and a largely increased rate of sickness, and the highest rate of deaths, are found together. There is no reason to believe that the statistics of the present year are exceptional. It seems likely that the classes of young soldiers will usually furnish the greatest relative amount of sickness, as those in them are more exposed to certain causes of disease than older soldiers; recruits often acquire illnesses on their way to join, and are taken into hospital on arrival, or soon after arrival at barracks; young soldiers are more liable than older ones to attacks of the eruptive, and of some other kinds of fevers; they are more exposed to accidental injuries; and it may be, that the change to an unaccustomed manner of life, at first causes a greater proneness to sickness. The supposition that the highest rate of sickness is normal for the class of young men is supported by the statistics of the sickness amongst the students of the Royal Military Academy at Woolwich, and those of the Royal Military College at Sandhurst, whose ages nearly correspond with those of the class of young soldiers under 20.

In the following Table, a further analysis of the admission rates of soldiers of different classes of ages is made, and the results in each arm are shown separately :—

United Kingdo

Corps.	Under 20.		20 and under 25.		25 and under 30.		30 and under 35.		35 and under 40.		40 and upwards.		Total.	
	Strength.	Admitted into Hospital.	Strength.	Admitted into Hospital.	Strength.	Admitted into Hospital.	Strength.	Admitted into Hospital.	Strength.	Admitted into Hospital.	Strength.	Admitted into Hospital.	Strength.	Admitted into Hospital.
Household Cavalry	84	82	367	364	322	188	222	78	121	49	87	9	1,203	770
Rate per 1,000 of strength	976·2		991·8		583·8		351·3		404·9		103·4		640·1	
Cavalry	1,567	1,776	4,066	4,995	1,979	1,473	1,049	691	1,708	953	340	283	10,709	10,171
Rate per 1,000 of strength	1133·4		1228·4		744·3		658·7		558·0		832·4		949·9	
Royal Artillery...	1,754	2,208	5,725	5,364	2,544	1,878	1,897	1,063	1,790	975	582	503	14,292	11,991
Rate per 1,000 of strength	1258·8		936·9		738·2		560·4		544·7		864·3		839·0	
Royal Engineers	304	178	965	629	628	327	339	112	269	76	109	81	2,614	1,403
Rate per 1,000 of strength	585·5		651·8		520·7		330·4		282·5		743·1		536·7	
Foot Guards	726	549	1,796	2,077	1,258	1,116	745	416	566	222	234	125	5,325	4,505
Rate per 1,000 of strength	756·2		1156·5		887·1		558·4		392·2		534·2		846·0	
Infantry	6,402	6,306	12,492	11,740	5,762	3,602	5,101	2,595	6,503	3,503	1,470	1,224	37,730	28,790
Rate per 1,000 of strength	985·0		939·8		625·1		508·7		538·6		832·6		767·8	
Depôts	626	451	599	709	296	251	231	167	377	166	174	144	2,303	1,888
Rate per 1,000 of strength	720·4		1183·5		848·0		722·9		440·3		827·6		819·8	
Brigade Depôts...	1,085	1,083	1,073	1,156	653	355	623	259	1,021	486	321	232	4,776	3,571
Rate per 1,000 of strength	998·2		1077·3		543·6		415·7		476·1		722·7		747·7	
Army Service Corps	223	168	805	547	559	311	368	121	417	122	127	80	2,499	1,349
Rate per 1,000 of strength	753·4		679·5		556·3		329·0		292·6		629·9		539·8	

United Kingdom.

A general correspondence is exhibited in the results for each arm, and those for all arms combined. In both, the same gradual decrease in the admission rate is seen, until the class of ages, 40 and upwards, is reached when a rise occurs, making the rate for the class approximate to the average rate for all classes in the arm. The most important difference is in Infantry, in which the lowest admission rate is reached in the class of ages, 30 and under 35. Differences of minor importance occur in Household Cavalry, Cavalry, Royal Engineers, Foot Guards, Depôts, and Brigade Depôts ; in those arms the highest admission rate is in the class of ages, 20 and under 25, not as in all arms combined, in the class of ages under 20.

VACCINATION.

The monthly returns received during the year show that in the United Kingdom 19,811 non-commissioned officers and men were vaccinated, being, in all but an immaterial number of instances, re-vaccinations of recruits on joining their corps.

The following Table shows the proportions of success and of failure after the operation when performed with fresh and with preserved lymph :—

	Fresh Lymph.		Preserved Lymph.	
	No. of Cases.	Ratio per 1,000.	No. of Cases.	Ratio per 1,000.
A perfect vaccine vesicle	3,091	410·0	3,369	274·5
A modified ditto	3,278	435·0	5,127	417·7
A failure	1,168	155·0	3,778	307·8
	7,537	1000·0	12,274	1000·0

HOME STATIONS.

SANITARY REPORT.

Aldershot.

The annual sanitary report of Deputy Surgeon-General Mackinnon, C.B., for 1875, contains no remarks specially calling for attention. There have been no important defects in a sanitary point of view requiring any special notice. Suggestions for some improvements have, however, been entered in the Estimates for the current as well as the following years.

There has been no outbreak of infectious disease among the troops ; and Aldershot maintains its character for salubrity.

Eastern District.

Deputy Surgeon-General Best reports that the general health of the troops in the District during the past year was satisfactory. The barracks, hospitals, and subsidiary buildings were kept in a good sanitary condition, and afforded the necessary accommodation.

The introduction of the dry-earth system of conservancy at the camp, Colchester, previously recommended in sanitary reports, is again urged, the present method of using tubs in the latrines being considered objectionable.

" Medical officers are pretty unanimous in their opinion that the daily ration of animal food is insufficient. A more liberal allowance is especially required for young soldiers, who, often joining their regiments in a poor half-fed condition, are at once thrown into active exercise and exertion. With respect to the clothing, it is most necessary that cotton shirts should not be allowed to be worn during cold weather without warm underclothing. There is every reason to believe that some of the admissions for chest affections during the past year were attributable to this, more particularly in the case of young soldiers.

"As diseases arising from climatic influences—conspicuous among which may be mentioned pulmonary and throat affections and rheumatism—have contributed largely to the admissions into hospital, I take the present opportunity of making the few following remarks, premising that they are chiefly applicable to Colchester, where the greater part of the troops serving in the district are located. The climate is, no doubt, salubrious, and believed to be drier than the generality of military stations; at the same time, it is a most trying one at certain seasons, notably so towards the termination of the winter and throughout the spring months, when keen easterly winds, at times accompanied by rain, snow, or sleet, are of almost daily occurrence, and their severity is especially felt in the exposed positions of the camp and barracks. Such being the case, it becomes a matter of grave consideration whether it is prudent or desirable to order troops at once to Colchester who for years before had been serving in a tropical climate. I am quite of opinion that, on the arrival of troops from India, it would be more judicious (and greatly to their advantage if practicable) to order them to some warmer and more sheltered station, and to keep them there until the summer weather had fairly commenced, instead of locating them at Colchester or Warley, which latter may be said to be equally cold and trying at certain seasons."

The following are among the improvements that have been effected or were in progress during the year. A few remarks as to requirements are also made:—

"*Colchester.*—In May, the new Artillery Barracks were occupied by the head-quarters and B and D Batteries, 25th Brigade, Royal Artillery. They are represented by handsome brick edifices, and are commodious in every respect. The requirement of a fixed bath for each of the lavatories has been represented. A shed has been erected on Middlewick Rifle-range as a shelter for troops going through a course of musketry. An infant school has been erected in the camp.

"*Warley.*—New guard-rooms and cells are in course of construction. Boilers in kitchens, cottages, and mess establishment have been renewed, and alterations made for improving the accommodation in the married quarters.

"*Norwich.*—Officers' quarters have been enlarged and improved, and an adult schoolhouse erected. Better accommodation is required for married families, a large number of whom are located in lodgings in vicinity of barracks.

"*Ipswich.*—New water-supply pipes have been laid down, and the prisoners' room better ventilated. The barrack latrine is simply a cesspit, but it is kept in a fair sanitary condition by being emptied weekly and by the free use of lime. It would be desirable to introduce the dry-earth system of conservancy.

"*Great Yarmouth.*—The drainage in the vicinity of the station has been much improved. Improvement is required as regards married accommodation.

"*Harwich.*—New ventilating grates have been provided and fixed in the casemated barrack-rooms and hospital, and some of the rooms are boarded."

South-Eastern District.

Deputy Surgeon-General Watt reports:—"The health of the troops in the South-Eastern District during the year 1875 has been satisfactory. But few cases of infectious disease have occurred among the men belonging to the various corps serving in the district, and none were of any severity. In the month of June a case of small-pox occurred in the person of a woman at Canterbury; and in the following month several children, belonging to the Royal Horse Artillery, were attacked with scarlet fever. All these cases were of a

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mild nature and speedily recovered. During the month of August diphtheria appeared among the children of the 82nd and 93rd Regiments, two cases proving fatal; and in November, scarlet fever of a malignant type broke out among the children at Shorncliffe camp: six cases proved fatal. As with diphtheria, the disease was probably imported from Woolwich, where it was rife.

"The Contagious Diseases Acts are in operation at Dover, Shorncliffe, Maidstone and Canterbury. A general diminution of venereal affections, especially syphilis, has taken place, notably at Canterbury. I am of opinion that these Acts have a very beneficial effect on the health of the troops, and in this I am supported by the statements of most of the Medical Officers in the Command.

"As in former years, a number of men were sent from other stations to Shorncliffe for change of air and sea-bathing. As the weather often for weeks does not admit of bathing, and the men are under very little surveillance and allowed to frequent the canteens, I am of opinion that in most instances little benefit is derived from their stay at Shorncliffe. I have recommended that if men are sent in future they should be carefully selected, and made to attend hospital daily."

The following remarks are applicable to individual stations in the district:—

"*Dover* (*Western Heights*).—A hut for the treatment of soldiers suffering from infectious diseases is much needed, as also suitable accommodation for the reception of women and children attacked with these affections. The provision of these buildings has been strongly urged in successive annual barrack estimates.

"I have also recommended the erection, adjacent to hospital, of suitable quarters for the non-commissioned officers and men of the Army Hospital Corps employed therein."

"*Shorncliffe.*—At this station also it is desirable that a hospital for women and children attacked with infectious diseases should be provided. I have strongly recommended that a suitable building and necessary offices should be erected on the ground between the station hospital and the lock hospital. The latrines are faulty, but they are kept as clean as possible; and during the time I have filled the office of Principal Medical Officer have exercised no unfavourable influence on the health of the troops. On two occasions, complaints have been made relative to the water in the Royal Artillery lines at Shorncliffe. Samples were submitted to the War Office Chemist, who has expressed his opinion that they are free from impurity and fit for drinking purposes."

Chatham.

Deputy Surgeon-General Bowen reports that "the health of the troops has been very good during the past year, the number of daily sick having been considerably less than last year (1874).

"The defective drainage at Brompton Barracks is in process of improvement.

"Since the change in the water supply at Tilbury Fort, in March last, there has not occurred a single case of ague at that place, and the general appearance of the men quartered there has become much more healthy.

"The soldier's ration has been always of good quality, with the exception that I think the bread ought to be somewhat better; but long experience and observation only confirm me in the belief that the meat ration is insufficient. The amount in weight is so small that a proper proportion of necessary elements is not obtained, especially in the article of fat. This should be supplemented, perhaps, by the men themselves, by the purchase of either bacon, cheese, or butter in sufficient quantities; but at present this can hardly be expected from the soldier without some supervision; and I am fully persuaded that an extra quarter of a pound of meat, or its equivalent, would be of great advantage.

"Numerous sanitary services have been either executed during the year or are now in progress."

Woolwich.

Deputy Surgeon-General Shelton reports:—"The health of the troops in this district during the past year has been decidedly better than during 1874, as evinced by lower ratios of admissions and invaliding. Though the death rate is a trifle higher than that of 1874, this is due mainly to the number of fatal cases among the men of the 18th Brigade, Royal Artillery, on its arrival at Woolwich from India, during an exceptionally severe season.

One cause of the large number of admissions for venereal complaints appears to be the close proximity of London, and the ease with which it is reached from this garrison.

A number of the admissions from bronchitis, tonsillitis, and kindred diseases, appear to me to be caused by the habits of the young soldiers who live in the range of old huts on the common at Woolwich, as well as by the faulty condition of the huts themselves. These men are chiefly recruits—drivers for the Artillery, who, on rising in the morning, have to walk some 500 or 600 yards to their stables, and this they generally do in their shirt sleeves, or, at best, with a jacket thrown over their shoulders. After an hour's hard work in the stables, this distance has to be retraversed in the same dress; and, without doubt, this, with the coldness and liability to draughts of the huts themselves, contributes to admissions from diseases of the throat and chest.

As must always be the case among the Artillery, a large number of admissions are caused by accidents in the stables, or at drill, though, fortunately, few of these assume a serious character.

The epidemic of diphtheria, adverted to by my predecessor in last year's report, continued far into this year. This disease (which originated in the Royal Artillery cottages), caused 73 admissions altogether, of which no less than 38 proved fatal. The cottages are a series of wooden huts, about 80 years old. They were vacated on the 11th March 1875, but, unfortunately, without at once checking the spread of this disease."

Southern District.

Surgeon-General Mouat, V.C., C.B., reports that "the general health of the troops serving in the Southern District during the year 1875 has been very good. While the admissions and average daily sick have been higher than last year, the mortality has been less. No local or other causes of disease have been noted as injuriously affecting the health of the troops at the various stations of the district, with the exception of a few cases of typhoid fever at Hilsea, attributable, it is believed, to the use of sewage as manure. The matter was brought to the notice of the military and local authorities, and the nuisance, although mitigated, has not been altogether abandoned. On all Government farms the practice has ceased.

The following sanitary defects, of minor importance, exist in the district. They have been brought to the notice of the local military authorities:—

New Barracks, Gosport.—The prisoners' room, adjoining the Guard, is entirely deficient of means of warmth, and as it requires to be washed almost daily, it is seldom quite dry. This might be remedied without much expense or difficulty, and is absolutely necessary.

Gosport Forts.—During the summer the ditches around the Forts were somewhat offensive when the water was low, but on enquiry and examination, no disease could fairly be attributed thereto. A recommendation was made for the periodical removal of anything offensive. At present no nuisance is experienced, as the water is now considerably above its ordinary level, owing to the late rain-fall, but as the warm weather approaches, the smell may again return, unless some steps are taken to prevent it. No disease has occurred among the troops in the neighbourhood attributable to this cause.

Fort Rowner.—The Medical Officer of the 38th Regiment, Fort Rowner, considers the Kersey frocks worn by the men insufficiently warm during the winter months.

40th Brigade Depôt.—The Medical Officer, 40th Brigade Depôt, considers the fuel insufficient to keep the casemate and cavalier quarters at Fort Elson dry. Married quarters are being built for the families now in Fort Elson.

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Mill-Dam Barracks, Portsmouth.—The guard-room, cells, canteen-tap, workshops and reading-room would all be improved by a little cross ventilation by means of a perforated brick or two at the back walls, as the rooms are very small and close at times. The bath-room is deficient in pegs to hang men's clothes, and foot tubs are urgently required.

Clarence Barracks, Portsmouth.—The guard-room is far too small for the strength of the guard (9); prisoners' room dark, ill-ventilated, and also too small, constructed for 5 persons only, and is often necessarily overcrowded. The lavatories and baths are situated in a dark, damp, ill-ventilated room on the basement, and the means of ablution are barely adequate.

Cambridge Barracks, Portsmouth.—In consequence of the large number of men attached to the 52nd Regiment, the utensils, *i. e.*, coppers, are not sufficient, and the cook-house is so constructed that there is no escape for the steam except by the doors and windows; the consequence is that the cook-house is always full of steam, and the floors consequently wet. The prisoners' room, which is situated on the basement under the guard room, is not warmed in any way, and in very cold weather is scarcely fit for occupation without the precaution of the men's bedding and great coats being allowed them.

Gun Wharf Barracks, Portsmouth.—The tap-room and canteen are too small for the number of men using it. The prisoners' room has been enlarged, well lighted and ventilated, but the means of warmth is inadequate.

Winchester.—The Medical Officer, 1st Battalion, Rifle Brigade, states that the ceilings and windows of the Winchester Barracks are low, giving to some of the rooms a gloomy appearance.

Station Hospital.—The walls of the cook-house are in a wet condition in consequence of there being no escape for the steam.

Parkhurst, Isle of Wight.—The men of the 107th Regiment, recently returned from India, complain of the excessive cold, and the difficulty of warming the rooms with the government allowance of fuel. I found all the grates of the old pattern, and from their size and construction I consider that no amount of care and attention can make the fuel suffice, or diffuse a sufficient amount of warmth. I would suggest for consideration the necessity of altering the present faulty fireplaces or increasing the allowance of fuel. The ventilation of buildings is in general sufficient, and the facilities for ablution ample, the means of cooking good, diet unchanged, and while the cubic space has not been increased there has been no overcrowding. The water supply has been good in quality and abundant in quantity.

The total number of men exercised in the gymnasia during the year in the Southern District was as follows:—

Stations.	Officers.	N.-C. Officers and Men.
Portsmouth	3	465
Gosport	..	389
Winchester..	2	672
Parkhurst	1	156
Portland	2	289
Total	8	1,971

The majority have undergone the exercises with advantage to their health and appearance. The chest measurement was on an average increased by 1·5 inches, the arms and legs were considerably developed, and the increase in weight averaged 5lb. per man. The Contagious Diseases Acts are in operation at Portsmouth, Gosport, Winchester and Southampton, but not in the Isle of Wight. The Medical Officer at Parkhurst states, that venereal diseases have caused a number of admissions attributable, in his opinion, to the fact that Newport is without the operation of the Contagious Diseases Acts.

The sickness and mortality of the Troops in the Southern District, as well as the amount of invaliding, are considerably increased by the circumstance

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that Portsmouth is generally garrisoned by regiments recently arrived from India and other foreign countries; and with old soldiers, often much debilitated by long service abroad; but on the whole, a review of the past year is satisfactory so far as the health of the Troops is concerned, and compares favourably with the statistics of former years."

Netley.

Surgeon-Major Madden reports that:—"The results of the Registrar's Annual Returns for 1875, on foreign-station invalids, and on effectives attached to or passing through Netley, are shown in the following Table:—

I. INVALIDS.

	Remained, 1st Jan., 1875.	Since Joined.	Died.	Discharged. As Invalids.	Discharged. To Corps or Depôts.	Discharged. To Lunatic Hospital.	Remaining 31st Dec., 1875.
From Foreign Stations ..	67	2,270	51	957	1,186	16	127
From Home Stations	..	..	..	..	..	..	..
Men sent for change	6	48	3	3	44	..	4

II. EFFECTIVE TROOPS.

	Average Annual Strength.	Remained 1st Jan., 1875.	Admitted.	Died.	Discharged.	Invalided.	Remaining, 31st Dec., 1875.
Army Hospital Corps	168	6	82	3	73	9	3
Army Service Corps	26	..	13	..	12	..	1
Royal Engineers and Garrison Police	18	1	2	..	3	..	..
Time Expired Depôt	130	27	169	3	175	5	13
Staff	4	..	1	1	..	..	..

It is calculated that about 1,250 invalids, chiefly from India, went direct to their Depôts on disembarkation at Portsmouth, in addition to the number (2,270) who were admitted to Netley.

The proportion returned to duty and discharged as unfit is an average one. The death-rate is rather above the average, phthisis and the circulatory and respiratory diseases being the chief causes of mortality among invalids.

Arrival of invalids.

As heretofore, the great mass of the invalids arrived in April, 1515 having been received from India in that month. This necessitated the temporary use of marquees for about a fortnight for the convalescents, and somewhat strained the resources of the establishment, the actual accommodation in the hospital not exceeding 958 beds.

The ships "Crocodile" and "Jumna" disembarked their invalids within two days of each other, which gave 809 admissions almost in a body, and raised the total sick in hospital in the end of April to 1,045. The inconvenience of this sudden pressure has already been represented.

Army Hospi Corps.

The Army Hospital Corps had its head-quarters shifted to Aldershot in September, and the instructor, Surgeon Moore, accompanied it.

Discharge depôt.

The Discharge Depôt has continued on the same footing as in previous years. Their average monthly strength has varied from 527 in January to

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26 in October. They occupy tents in summer, and are lodged in the south wing of the hospital during the winter months.

Hospital.

The sanitary condition of the hospital has been good during the year.

Water supply.

The water-supply is from Artesian wells and a reservoir. Nothing special was required. Attention is paid to filtration of the water used in the cookhouse.

Provisions.

The provisions have been regularly inspected, and the supply of meat, vegetables, and groceries, &c., has been a fair average in respect of quality. The tea is tested by analysis before issue. For families requiring provisions and groceries there is an excellent canteen, which is very carefully looked after.

Cooking.

The cooking arrangements are by boilers, Benham's range, and gas jets, and are sufficient for the requirements. Hot-water trays are in use to convey the cooked diets to the wards. Some new boilers have been recently introduced into the cook-house.

Drainage.

The drainage of the hospital is not yet completed in respect of the air-disconnection to be effected between the main sewer and the various water-closets and lavatories, but the works are being proceeded with.

Female Hospital.

The Female Hospital has been in use during the year. There are two small wards with five beds in each. It appears to be a useful institution, and the accommodation is satisfactory, so far as it goes.

There is no infectious ward. One or more would appear to be required, as there have been numerous cases of measles and stray cases of scarlet fever among the families, and the only means of isolating such individuals is by placing them in marquees.

Cells.

An addition has been made to the number of cells, four new ones having been added. These are properly constructed and ventilated. An exercising court in front of the cells has likewise been made.

The following are the chief sanitary improvements during 1875.

1. Adding four new cells for prisoners.
2. Proceeding with air-disconnection between the ablution and bath rooms; with sinks from main drain in the north wing (completed), and in south wing (commenced).
3. Replacing some of the old boilers in the cook-house by new ones.

The following sanitary recommendations have been made by Surgeon-General Fraser, C.B.:—

1. To provide a separate hospital for officers.
2. To provide a separate hospital for infectious diseases (the suggestion is made to turn the present "imperfect female hospital" into infectious wards, and provide a suitable female hospital).
3. To complete the air-disconnection of ablution and bath rooms with sinks from main drain in the south wing (approved and in hand).
4. To complete the surface drainage in the south wing yard (approved and in hand).
5. To complete the surface drainage in rear of the hospital wall in its whole extent (approved and in hand).
6. To provide better filtration for the whole of the water supply.
7. To erect a Turkish bath.
8. To provide additional cottages for the families of invalids.
9. To provide a new school-house for children, in lieu of the present arrangements."

Western District.

The Principal Medical Officer reports:—

"The medical officers in charge of stations generally make mention of the damp and relaxing character of the climate of the Western District. They severally state that it has a prejudicial effect upon those predisposed to bronchial and rheumatic affections, or whose livers have been deranged by service in hot climates, but upon others it seems to have exerted a salutary influence.

"According to my observation and experience, the climate, especially that of

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the southern part of Devon, has been very humid and enervating. At Plymouth and Devonport scarcely a day passes without rain, although the amount which falls in the twenty-four hours is usually small. The climate of these towns, however, appears to suit chest affections, and it is only the dyspeptic, gouty, or rheumatic who are injuriously affected by it.

"The sanitary condition of the several barracks, hospitals, outbuildings, and enclosures throughout the district has been, on the whole, very satisfactory. Several of the barracks, such as Millbay, Granby, Mount Wise, and Trowbridge, are old and faulty in construction.

"*Devonport and Plymouth.*—The medical officer at Mount Wise Barracks complains of the defective drainage of Devonport, the main drain of which does not extend sufficiently far out into the creek to enable its contents to be carried away by every tide.

"A somewhat similar state of affairs exists in the creek running adjacent to and between the station hospital at Stoke and the naval hospital at Stonehouse, but I cannot discover that any medical officer has ever experienced any ill effects from it. Another source of complaint in connection with Stoke hospital is the graveyard in its immediate vicinity, and to the north. This graveyard, which has been closed for interment since 1874, was lately the subject of a vestry meeting as to a proposal to re-open it for burials; however, by the strenuous opposition of the vicar, backed by the Principal Medical Officer, the idea has been abandoned. The only other nuisance is the offensive manure works on the Cattdowns, not far from the Citadel. Numerous complaints have been made to the civil authorities, with the view of its removal by the inhabitants of the neighbourhood, but without avail.

"Tregantle Fort has been vacated during the year, in consequence of the damp state of its walls, and it is now undergoing repair.

"The latrines at Raglan Barracks require better ventilation, to prevent the offensive smells experienced in summer, and a ridge ventilator has been recommended. That also at Millbay requires an opening to be made in the wall opposite the entrance for the same purpose. The flow of water through the drip-pipes in urinals at Raglan and Granby requires to be continuous. A tank for the storage of water has been recommended for each urinal, not only to carry out the above, but to ensure the prevention of contamination of the water in the mains.

"The accommodation for married soldiers is inadequate for the garrison —in fact, at Devonport it is worse than last year, in consequence of the addition of the 35th Brigade Depôt from Tregantle. Several families are still placed in one room.

"The lighting and warming has been satisfactory, and the regulated number of inmates in each room has not been exceeded.

"The water supply has been good and abundant, its source being the Dartmoor hills, from which it is collected in reservoirs by the Water-works Company and distributed to the different barracks.

"The hospital buildings are in good order, and the accommodation is ample. The colonnade is now in course of reconstruction, the necessary funds for the purpose having been granted. The new service of hot and cold water has been since completed, and it is found a great addition to the comfort and welfare of the sick. The reappropriation of the wards to suit the station hospital system has been completed. The warming, lighting, and ventilation of the hospital have been quite satisfactory, and there has been no overcrowding of the patients.

"*Exeter.*—The barrack buildings and hospital are in good condition. Some of the men's rooms in the old barracks at Topsham still require re-flooring, and the stables beneath to be ceiled with lath and plaster, to prevent the exhalations passing from them into men's rooms above. This service is, however, gradually being effected. The wall at the back of the hospital at Topsham, which impedes the free circulation of air, has not yet been removed.

"There is not sufficient accommodation for the married families at the higher barracks, two families being placed together in a room.

"Ventilating shafts have been placed in the barrack rooms at Topsham. The higher barracks have been converted from a cavalry into an infantry barracks, the stables being now used as rooms for the men of the 34th Brigade Depôt,

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new urinals, latrines, and lavatories having been constructed, and a thorough system of ventilation adopted.

"*Bristol.*—The barracks, buildings, out-offices, and hospital are in a satisfactory state. A latrine is required outside the hospital building. A pack store is also much wanted, and a building for the treatment of infectious diseases.

"*Trowbridge.*—The condition of the barracks and hospital at this station cannot be considered satisfactory. The buildings are old, and faulty in construction, and not suitable for a battery of artillery. There are no married quarters, the married families being still accommodated in a long attic. This room is cold in winter, and hot in summer, and is lighted by skylights. There is no system of ventilation in the barrack or guard rooms.

"*Pembroke Dock and Defensible Barracks.*—The sanitary state of the town is described as bad. There is no water supply to a population of over 11,000, beyond rain-water collected in tanks placed underground, in immediate vicinity of cesspits. Typhoid fever, however, does not appear to be prevalent. There is the usual complaint of offensive emanations from the mud in the immediate vicinity of the hut encampment, but it does not appear to have had any injurious effect upon the health of the men.

"The huts and outbuildings, hospital, &c., are all in a good sanitary state. There has been no overcrowding, either in camp or hospital, in consequence of the diminished strength of the garrison.

"The ashpits are still those of the old four-walled pattern.

"The latrines at west end and that at the hospital are still much complained of. There is no reason that I can see why these latrines should not be fitted with the McFarlane patent apparatus, as has been done with that at the east end. The latrines and urinals at Defensive Barracks are still reported as very offensive at times.

"A female hospital is much needed, not only for the garrison itself, but for the cases of sickness occurring in the various outlying forts in the neighbourhood.

"The improvements during the year have been—two new brick huts to replace old wooden ones, a rain-water tank in hospital, and better ventilators in men's rooms in Defensible Barracks. A new infectious ward is to be erected during the ensuing year.

"*Hubberstone.*—The fort is in a good sanitary state, with exception of the roof being bad in places, and giving rise to leakage, especially over the hospital wards. The latrines and urinals are on the same system, and in a similar situation to those at the Defensible Barracks, Pembroke Dock, but they are not reported as offensive. Water is not laid on in the hospital. The oven in the men's kitchen is old, and frequently requires repair, and takes much coal to heat it. To prevent the dampness of the barrack rooms, silicated paint has been tried as an experiment on a small portion of the outside wall (that most exposed to the weather), and has answered admirably.

"*Newport, Monmouth.*—The barracks and hospital are in a good sanitary condition. Ventilation in the old block of buildings used by the Artillery is much needed. Water requires to be laid on (with drip-pipe) in the urinals, and a building for infectious diseases is required; also a more free communication between the surface and subsoil drains, to prevent the lodgment of water at the Artillery barracks. A more abundant supply of water is needed for the Artillery, their well being polluted by drainage from the stables, and their drinking water having in consequence to be brought from a distance in carts. The barracks have been much improved during the year. A new block of buildings has been constructed to accommodate a battery of artillery, instead of only two-thirds of a battery as before. The ventilation of the infantry barracks has been materially improved by the introduction of extraction-shafts. A handsome and commodious building is in course of erection, to contain recreation-rooms and additional officers' quarters.

"A site has been approved of in an adjoining field, on which to build two blocks of married quarters, to accommodate 48 families. This will obviate the necessity of placing married families in small and unhealthy lodgings, as is the case at present. It is also proposed to build a female hospital on the same site.

"*Brecon.*—The buildings comprising the barracks and hospital are in a satisfactory state, with the exception of there being no proper system of ventilation in any of the rooms.

Western District.

"The latrines are on Moule's system, and have been kept in a better condition, the men being better acquainted with their use. Water has been laid on in the barracks from the town water-works.

"*Penally and Tenby.*—With exception of the officers' quarters, the several buildings comprising the barracks and hospital at Penally are in a fairly good sanitary condition.

"*Falmouth.*—The barrack buildings and hospital are old and faulty in construction. The rooms have no system of ventilation, and, with the exception of the hospital wards, are small, low, and close in summer.

"The surface drains require a freer communication with the subsoil drains, to prevent the flooding which now takes place during heavy rains. The latrines are, during the drought of summer, objectionable, not being sufficiently flushed, water having to be brought for this purpose from the sea"

Northern District.

The troops in this Command are reported by Surgeon-Major Tarrant to have been healthy: the ratio of admissions per 1,000 of mean strength has decreased, although that of deaths has somewhat increased, during the year under report as compared with the preceding one (1874).

The sanitary improvements that have been effected during the year at the numerous stations in this Command have been almost entirely of a minor character.

North British District.

The sanitary report of Deputy Surgeon-General Elliot, C.B., contains the following remarks:—

"*Barracks and Hospitals.*—These are much in the same state as previously reported on, but I trust before another 12 months that the new barracks at Greenlaw, and the Maryhill Barracks, near Glasgow, will be occupied.

Edinburgh Castle.—The room formerly occupied by the steward has been, at my suggestion, converted into an infection ward.

Piershill.—There is no change since last report. The infection ward has been of great use in isolating cases. There is a want of store accommodation for clean and dirty linen.

Leith Fort.—A new canteen, and women's wash-house, are to be built early next year.

Gallowgate Barracks and Hospital.—Now that there is a force of Royal Engineers at Maryhill, the accommodation at the hospital is at times insufficient, and one or more barrack rooms have to be used as hospital wards.

Ayr.—Double windows have been fitted to the most exposed side of the new barrack.

Hamilton and Perth.—There is to be increased accommodation for both healthy and sick soldiers.

Stirling.—New married quarters have been sanctioned. At times the married families have been much crowded—three or four in a room.

Dunbar.—Early in the year a detachment of the 64th was quartered here, but they left in April. The 62nd Brigade Depôt went there 31st July. They have had fair accommodation, but at times the men are somewhat crowded, and they then take over rooms in the New Inn Barracks, in rear of the officers' mess and quarters. In the same court is the hospital, for five patients only; and the former guard room is used as a dead-house. These are mere temporary accommodations until the Brigade Depôt moves to Greenlaw new barracks, where they are to be quartered.

Dundee, Aberdeen, and Fort George.—Are much in the same state as when last reported.

As a rule, there has not been any overcrowding in the barracks but the

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hospital accommodation at Glasgow and Hamilton has not at times been sufficient, resulting in the barrack rooms being used as sick wards; but more ample accommodation will be afforded when the new plans are carried out at these stations."

Dublin District.

Deputy Surgeon-General Foss reports:—"The only prominent requirement carried out in barracks has been the introduction of the Vartry water into the Island Bridge Barracks. It is intended that Portobello should be supplied from the same source. The Station Hospital, Phœnix Park, answers the purpose well; but it is not spacious enough for the number of sick in the garrison and for the invalids of the district. The supplemental building at Arbour Hill is quite unsuited for the purpose, so much so that it is impossible to arrange and conduct matters satisfactorily in it; and I would wish to draw attention to this subject, as its construction imposes an excessive amount of attention and labour from the Medical Officers and all the subordinates."

Belfast District.

Deputy Surgeon-General Webb reports:—"The impurity of the water at some of the stations in this district is becoming a very serious subject for sanitary legislation. This is particularly the case at Armagh, Belturbet, and recently at Belfast. A return has already been provided, showing the description and state of the water supply at the various stations, and every means are being adopted to remedy these defects. The use of impure well-water has been interdicted for drinking, and in some instances the pump-handles have been removed, and the wells boarded over. A great deal has been effected in the way of sanitary improvements, of which the following is a *précis*:—

During the year 1875–76 many alterations, in the form of sanitary improvements, have taken place throughout the Belfast District to sinks, wash-houses, and ablution-rooms, by disconnecting outlet pipes with sewers, also water-closets and their soil pipes, and their supply pipes have been disconnected from drinking-taps. This kind of service will be continued on a larger scale this year. Two new wings have been built to Infantry Barracks, Belfast, and a block for Cavalry Barracks, also stabling for officers and men; all very freely ventilated on modern principles. Foundations of new married quarters, Belfast, have been commenced; the building, when completed, will accommodate 30 families; also an infant school and quarters for schoolmistress. The whole of the barrack at Dundalk, with stables, have been painted and white-washed. A large tank at Londonderry has been repaired and cleaned, and several smaller tanks also. Two new wells have been sunk at Armagh and Cavan. At Monaghan the drainage has been generally improved. Besides the above, many minor matters of a similar nature have been attended to."

Cork District.

Deputy Surgeon-General Crocker reports that the general health of the troops during the year has been good, though not quite so favourable as in the preceding one. At some of the stations diseases of a preventable character, and dependent on local insanitary causes, have occurred.

In the month of September enteric fever, in an epidemic form, prevailed at Kinsale, in the 1st Battalion 12th Regiment, and caused 8 deaths out of 21 attacked.

The following information has been extracted from the medical history of

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this outbreak, as detailed by Surgeon-Major Wallace, the medical officer in charge, and other documents.

"Kinsale barracks are situated on an eminence to the north-east of the town of Kinsale, with a south aspect, at an elevation of 100 feet above the level of the sea, and within 300 yards of the terminus of a branch of the Cork and Bandon Railway. There are three or four houses, the back yards of some of which are described as filthy, just outside the north-east angle of the barrack enclosure, and objectionably close to the barracks. The position of the barracks is healthy; the buildings at present in occupation are distributed over a piece of ground 176 by 117 yards. They consist of three separate blocks, forming three sides of a square, and of five wooden huts built along the south or open side. The buildings are all three-storied (*i.e.*, reckoning the ground-floor as one), and built of stone and lime. The ground-floor is about 17 inches from the foundation, the intervening space being ventilated at frequent intervals. The east and west blocks are each 256 feet in length, 33 feet from the ground to the commencement of the roof, and 22 feet in width (including the walls). The block on the north side is somewhat longer and higher. They are separated from the barrack wall by an interval of 30 feet in some places and 40 in others, in which are the canteen, ablution-rooms, wash-houses, cook-houses, latrines, and urinals. The huts run along the south side, east and west. The walls of the huts are of wood, and the roof is of wood covered with felt. There is a door at each end, two windows on either side, opposite to each other, opening by means of hinges in the centre. There are two ventilators on the ridge of the roof, and one above each door. The huts are also raised some distance from the ground, the intervening space being ventilated. The huts measure 38 feet in length, 20 feet 3 inches in width, and 7 feet 6 inches in height. The barrack rooms are nearly all of the same size, measuring, as a rule, from 19 feet 5 inches to 20 feet 2 inches in length, from 18 feet 1 inch to 18 feet 5 inches in width, and from 9 feet 10 inches to 10 feet 2 inches in height. The rooms, as regards their age, general construction, and ventilation, are described as open to many objections.

In consequence of an outbreak of enteric fever in these barracks in 1873, certain improvements were recommended, some of which had been carried out, while others were still in progress at the date of the occurrences under report. The whole of the latrine system had been undergoing reconstruction, earth-closets having been substituted for the old cesspits; the rain-water tanks had been cleaned out, new filtering material having been supplied to the tanks about ten months before; the ventilation of the soldiers' rooms was being gradually improved.

At Charles Fort the old system of cesspits, which are described as having been in a foul state, still existed, the substitution of earth-closets having been recommended, but not yet carried out. The drains at this fort are of solid masonry, old and defective, and much damaged by rats.

Twenty-one men were admitted into the station hospital, Kinsale, with enteric fever during the month of September, the first admission being on the 10th, the last on the 30th, of that month. Of this number 20 belonged to the 1st Battalion 12th Regiment, and one, a soldier belonging to the 2nd Battalion, was from his depôt at Charles Fort, about a mile and a half from Kinsale.

From the Table appended it will be seen that the greatest number of admissions was on the 13th September. From the 1st to the 18th of that month the weather was very dry and warm, the heat being greater than at any other period of the year. From the 18th until the middle of the first week in October the rain fell in great quantities.

Water Supply.

The water supply for Kinsale Barracks may, for convenience of description, be divided into—1st, water for cooking and drinking; 2nd, water for the general cleansing of the barracks, ablution, &c. The former (except for a short time in summer, varying, however, according to the rainfall) is rain-water, collected in tanks in the south-east and south-west corners of the barracks. When this becomes exhausted the troops have to be supplied with water carted daily into barracks. This is generally obtained from the same source as that from which the town derives its supply—viz., a spring near the work-

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house, about half a mile from barracks. This water is of good quality, but during a long continuance of dry weather the spring alluded to would not yield water in sufficient quantity to supply both the town and the troops.

The mode in which the rain-water is collected is very defective, and, notwithstanding the greatest care, will always be likely to lead to the entrance of impurities. The reception tanks and filtering chambers are below ground, and not in by any means the best-selected portions of the barracks. If the filtering chambers and tanks hitherto in use are to be for the future the means of collecting and purifying the rain-water, there are several points, which are detailed at length by Surgeon-Major Wallace, to be attended to in order to prevent the water becoming impure.

2nd. The water for general cleansing of the barracks and ablution is obtained from two wells in the north-east and north-west corners of the barracks. It was analysed in 1874, and found unfit for drinking and cooking. Notwithstanding that it was marked up in distinct letters that this water was not to be used for drinking and cooking, it is believed that some soldiers did drink it.

The rain-water in No. 2 tank was found on the 14th September 1875 to be impure, after which no more was allowed to be taken from it. Some days after the sample just alluded to had been taken from No. 2 tank samples of water were taken from Nos. 1 and 2 tanks, Kinsale Barracks, and sent to the War Department chemist for analysis. The results of the analyses showed both to be very soft waters, and that *neither* of them were contaminated with drainage matters to an objectionable extent.

It must, however, be borne in mind, as explanatory of the different results in the above analyses, that some 9 feet of rain-water had been added to No. 2 tank between the time the sample referred to as having been examined in Dublin was drawn and that afterwards sent to London. The samples, although from the same tanks, were obtained under conditions very different.

From the appended Table it will be seen that 16 of the patients were from Kinsale, 4 from Charles Fort, and 1 from the camp at Charles Fort. As, however, three of those shown as admitted from Charles Fort were living in Kinsale twelve days before admission, and in the same huts from which several of the men who died were admitted into hospital, it is only reasonable to infer that they contracted the disease at Kinsale. The note at the foot of the Table, would also appear to afford sufficient evidence for attributing the origin of the fever in the man admitted from the camp to some sanitary defect in Kinsale barracks. There is then only one left the origin of whose disease can be in any way attributed to Kinsale. Fourteen of the admissions were from the huts built along the south wall of the barracks. Although the huts are far from being in a good state of repair, still there was nothing immediately connected with them to lead one to attribute the disease to them. Of the remaining seven cases, three contracted the disease while living in rooms on the north side of the barrack square, three on the east, while the seventh belonged to the 2nd Battalion 12th Regiment, and had not been in Kinsale barracks or its immediate vicinity for many months. Although the rooms on the north and east sides of Kinsale barracks are not such as they should be as regards ventilation and warming, still there is nothing in them or their immediate vicinity to give origin to enteric fever.

As regards the origin of the fever, there is no doubt it was due to one of the two following causes—(*a*) it was either owing to the bad quality of the water in No. 2 tank, or (*b*) the want of any means, either by traps or ventilation, for preventing the foul air in the underground drains leading off from the south-west angle of the barracks from being carried backwards and outwards where the surface join the underground drains. As regards (*a*), the analysis of the water made in Dublin showed that it was impure. The sample of water from No. 2 tank that was sent to London was not taken from the tank until after a heavy rainfall, when an additional 9 feet of water were added to what was in the tank at the time the sample sent to Dublin was drawn. The physical examination of the water made on the 14th September, (previous to the time that either sample was drawn), showed that it contained impurities. The subsequent steps taken to ascertain whether the construction of the tank and surroundings might be the cause of the outbreak afforded proof that the refuse water washed

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from the soldiers' tins could pass with facility into that portion of the tank where the water, after being passed through filtering beds, was collected. For some months previous to the outbreak the whole of the drinking-water used by the troops (men, women, and children) was taken from No. 2 tank. As regards (*b*), noxious effluvia were frequently found to emanate from the two drains that open on the south-west angle of the barracks, more especially from the one that opens in a narrow space between the end of the barrack block of buildings on the west side of the barrack square and the stable. Almost right over this drain all the soldiers in the huts and as many of those living in the north and east sides of the barrack-square as cared to pass that way had to pass through the narrow space before reaching the only latrine then available. To enable the men in the huts to reach this latrine by any other route would entail a walk the whole length of the barrack square. The men, however, who lived in the north and east sides of the barracks would be more likely, owing to the barrack square being frequently occupied with the different parades and drills, to pass round the barracks to the latrine in question without passing over the drain alluded to. This difference in the position of the huts and barrack-rooms with regard to the drain referred to might account for the difference in the number of admissions from these two sources, and lead one to attribute the outbreak to the non-existence of ventilators in the drain in question."

Surgeon-Major Wallace reports that the surface drains, more especially those along the barrack buildings, are very much in want of repair. They should, in his opinion, be constructed of concrete, and the underground drains receiving the surface water should, if possible, be constructed so as to empty their contents directly into the Harbour, without any communication with the underground drains receiving the urine; but if they are connected, they should be supplied with traps and ventilators.

In answer to a communication from this Department, embodying a series of questions intended to elucidate the causes of the outbreak of fever, Surgeon-Major Wallace subsequently furnished the following information:—

"At the time of the outbreak of enteric fever at Kinsale, September, 1875, the whole of the water for drinking and cooking for officers, men, women, and children was rain-water taken from Nos. 1 and 2 tanks in the south-east and south-west angles of the barracks—viz., from No. 1 tank water was taken for cooking for all the unmarried soldiers; for cooking and drinking for all the patients in hospital; and for cooking and drinking for the commanding officer and his family. From No. 2 tank water was taken for drinking for all the unmarried soldiers; cooking and drinking for the married soldiers, wives and children; cooking and drinking for the unmarried officers.

On and after September 14th the water for cooking and drinking for officers, men, women, and children was procured from the spring previously referred to. It never came to my knowledge that chamber-pots or other utensils which had contained dejections were brought to be rinsed close to the tanks.

There were no children on the sick-list with enteric fever before the outbreak. On the 14th of September (seven days after Private W——, the first admission with enteric fever, was taken into hospital) three children living in barracks were placed on the sick-list with febricula. From the appearance of two of these, together with the statements of the parents of the children, I have every reason to believe that they were cases of enteric fever; but when I first saw them (September 21st) they were convalescent, and the characteristic signs of enteric fever were no longer present. The mother states that they were ill for some time before they were reported sick, which would account for the apparent error of their being looked on as convalescent from enteric fever eight days after being placed on the sick-list. They were no doubt ill for some time before being reported sick.

Dr. Dorman, the medical man who has the most extensive practice in Kinsale, informs me that during the months of July, August, and September 1875 there were under his care, in different parts of the town, 17 cases of fever, chiefly children. He states that they were very mild, and could not be looked on as cases of enteric fever, but rather as simple continued fever.

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He also states that there is always more or less simple continued fever in Kinsale.

On the 13th September the barrack-serjeant's child, at Kinsale, was placed on the sick-list, under the head of diarrhœa. From the appearance of the patient, together with the parents' statements, I have reason to believe that it was a case of enteric fever. When I first saw the child the boy was very weak and emaciated, but none of the characteristic signs of enteric fever were then to be found. Unless these three children just referred to are looked on as cases of enteric fever, no other children in barracks suffered from it during the outbreak or immediately subsequent to it. The three alluded to had diarrhœa, the motions resembling pea-soup. No other children in barracks had diarrhœa.

None of the women in barracks suffered from enteric fever during the outbreak or immediately subsequent to it.

One officer, Lieut. R——, was on the sick-list from September 9th to October 4th, under the head of dyspepsia. When I took charge of him he was very weak, and had lost flesh considerably. From the history of the case, I have reason to look on this officer as having had enteric fever of a mild type.

Twelve days after the regiment left Kinsale Captain M—— was attacked with enteric fever. This, I am confident, was contracted in Kinsale.

The 20 cases of enteric fever were drawn from 287 men. I think it is only right to say that one other case of enteric fever should be taken into account, viz., Private P——, who died at Bantry, October 19th. He lived previous to the outbreak in No. 4 hut, on the side next the urinal in the south wall of the barracks, and although he did not report himself sick until his arrival at Bantry on the 30th of September, still, as he was in Kinsale barracks until September 19th, it is only reasonable to suppose that he contracted the disease before leaving Kinsale barracks. Of the 20 cases treated in Kinsale 14 were admitted from among the 82 men living in the huts, but if Private P—— be taken into account, there were 15 admissions with enteric fever from the huts. Or, as there were no admissions from among the occupants of No. 3 hut, the 15 admissions were, properly speaking, from the 67 men in huts 1, 2, 4, and 5 —*i.e.*, 1 in every $4\frac{7}{15}$ of the men living in huts 1, 2, 4, and 5 had enteric fever, or 1 in every $5\frac{7}{15}$ of those in huts, taking all the huts into account.

Of the 82 men living in the huts 65 drank beer and water, and of these 14, or 1 in every $4\frac{9}{14}$ had enteric fever, 6 ending in death. Of the above 82, 17 drank nothing but water from No. 2 tank, and of these 1 had fever, ending in recovery—*i.e.*, 1 in 17 had fever.

Of the 15 cases of fever occurring among the men living in huts, 4 were from No. 5 hut, 4 from No. 4 hut, 4 from No. 2 hut, and 3 from No. 1 hut.

Of the 15 cases of fever occurring among the men living in huts, 6 slept in beds on the north side of the huts, next the barrack square, and 9 on the south, next the south barrack wall.

Of the 82 men in the huts, the average age of the 67 men who did not contract the fever was 21·71, while that of the 15 who had the fever was 19·61.

Taking the 20 cases of fever referred to in the question, together with Private P——, there are 21 to be taken into account in estimating the proportion of those attacked to the actual occupants of the huts and barracks. Of these 21, 15 lived in four of the five huts (one hut having complete immunity), and as there were 82 men in the five huts, 1 man in every $5\frac{7}{15}$ had enteric fever, while in the barrack-rooms 1 man in every $35\frac{5}{6}$ contracted it.

Why the third hut should have complete immunity it is difficult to say. The urinals in the south wall were situated the west one not far from huts 4 and 5, and the east one from huts 1 and 2; so that the third hut was not so near either urinal as huts 1, 2, 4, and 5. As regards construction the huts were all alike.

The supply of milk to the troops at Kinsale, as well as that sent to the station hospital, from August 3rd, 1874, until October 29th, 1875, was obtained from the same sources. There were no cases of fever in the houses of those who supplied it. The source of milk was, of course, considered.

The men living in No. 3 hut, those in N house, east side of barracks, and those in K and L houses, north side of barracks, had immunity from the fever. In no respect whatever was the condition of the men in No. 3 hut different

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from that of those in huts 1, 2, 4, and 5, unless it be that No. 3 hut was not so near the urinals in the south wall as huts 1, 2, 4, and 5. Nor was the condition of the men living in houses K, L, and N different from that of those in G. H. O. and P.

The condition of the men living in the huts was different from that of those in the barrack-rooms, in so far that the former were much more liable to be exposed to the noxious effluvia from the underground drains in the south-west angle of the barracks.

The huts were within a few feet of the south wall of the barracks, where there were two urinals, the contents of which passed through this wall into open cesspools immediately behind. The men living in the huts were much nearer to these than those in the barrack-rooms, and in this respect their condition was different.

The distance from the nearest latrine to the nearest water-tank was 27 yards. The latrine, which was a cesspit of the worst description, has since been removed.

The underground drain which ran in front of the stable-door, on the south-west angle of the barracks, and which has been alluded to in my annual reports, was constructed of stones with more or less rough surfaces, and placed so as to make a section of it nearly a square, thereby affording every facility for the lodgement of anything washed along it. Into this drain passed urine, surface-water, the water from one of the ablution-rooms, and that from one of the women's wash-houses. From the outlet of this drain, near the stable-door, noxious effluvia were found to emanate.

The general course of the sewers was from north to south, the outfall of the system being about 143 yards from the south wall of the barracks, at the head of a small creek running up from the harbour. The outlet pipe was much below the level of the barracks. At low-water it was left exposed, but when the tide was high it was covered with water. The mouth of the pipe was protected by a flap.

In the beginning (about the first week) of September the old latrine or cesspit in the south-west angle of the barracks was closed and thoroughly cleansed (more so than had ever been done before), to enable the Engineer Department to commence the erection of latrines on the dry-earth system on the same site. The effluvia while so doing was very bad, much worse than on former occasions—*i.e.*, when emptied periodically. As this was the last time the cesspit was to be cleansed, and great care had to be taken to cleanse it thoroughly, it is quite possible that some soil or filth adhering to the sides and bottom of the cesspit, which may have been there for years, was then disturbed, and in the process of removal exposed to the sun. The weather about that time was very hot and oppressive.

The fact that only one had fever of those who drank nothing but the *suspected* water would tend to support the view that the water was not the cause.

I am rather inclined to look on the effluvia from the drains and the old cesspit in the south-west angle of the barracks as more likely to be the originating cause, more especially as Captain M—— and Lieutenant R—— never drank water (unless boiled), but were very much exposed (more so than the other officers) to the effluvia from the drains and cesspit in the south-west angle of the barracks.

Judging from the 82 men in the huts, the fever was more prevalent among the men who drank *beer and water* than among those who drank *water only*."

[A Board of Officers was ordered to assemble in September, to examine and report upon the sanitary condition of these barracks. The underground system of drainage was opened up and thoroughly examined, and the Board, together with the Commanding Royal Engineer and Principal Medical Officer of the district, made a number of recommendations of an important character in regard to the improvement of the drainage, both surface and deep; the water supply, its storage and filtration; and the ventilation and sanitary improvement of the barrack buildings generally. Extensive works have since been carried out by the Royal Engineer Department.]

No.	Rank and Name.	Age	Service	Date of Admission.	Whether from Kinsale Barracks, Charles Fort, Camp, or patients in hospital.	If from Charles Fort, period stationed there.	From whence arrived at Charles Fort—viz., from Kinsale, lodgings in town, &c.	Designation of Barrack-rooms and Huts.	If disease changed to Enteric Fever while in Hospital, how long and for what disease under treatment.
		yrs.	yrs.						
1	Pte. J. E.	20	3	Sept. 10	Kinsale	... ...	... ...	No. 4 Hut	
2	„ R. P.	19	$\frac{7}{12}$	Sept. 11	Charles Fort ...	12 days ...	From No. 1 Hut, Kinsale.	C Hut, Charles Ft.	
3	„ T. L.	20	7	Sept. 11	Kinsale	... ...	... ...	No. 4 Hut.	
4	„ F. O.	20	$\frac{4}{12}$	Sept. 13	Kinsale	... ...	... ...	No. 2 Hut.	
5	„ T. G.	19	5	Sept. 13	Kinsale	... ...	... ...	No. 4 Hut.	
6	„ G. H.	18	$\frac{7}{12}$	Sept. 13	Charles Fort ...	12 days ...	From No. 2 Hut, Kinsale.	C Hut, Charles Ft.	
7	„ W. H.	20	1	Sept. 13	Charles Fort ...	Since Nov. 1874.	From Kinsale.	No. 9 room, B passage, Charles Fort.	
8	„ T. P.	20	$\frac{6}{12}$	Sept. 13	Kinsale	... ...	... ...	P passage, east side of barracks.	
9	„ B. F.	21	3	Sspt. 13	Kinsale	... ...	... ...	No. 5 Hut.	
10	„ A. P.	19	$\frac{4}{12}$	Sept. 13	Kinsale	... ...	... ...	G passage, north side of barracks.	
11	„ A. W.	19	$\frac{4}{12}$	Sept. 13	Kinsale	... ...	... ...	No. 2 Hut.	Six days under treatment for simple continued fever.
12	„ G. C.	21	$\frac{4}{12}$	Sept. 14	Kinsale	... ...	... ...	No. 1 Hut.	Six days under treatment for febricula.
13	„ W. M.	20	1	Sept. 15	Charles Fort ...	12 days ...	From No. 1 Hut, Kinsale.	C Hut, Charles Ft.	
14	„ D. D.	20	1	Sept. 16	Kinsale	... ...	... ...	O passage, east side of barracks.	
15	„ W. L.	19	$\frac{6}{12}$	Sept. 16	Kinsale	... ...	... ...	No. 2 Hut.	
16	Boy J. H.	15	3	Sept. 17	Kinsale	... ...	... ...	No. 5 Hut.	
17	„ S. C.	15	1	Sept. 18	Kinsale	... ...	... ...	No. 5 Hut.	
18	Pte. J. L.	19	1	Sept. 21	Kinsale	... ...	... ...	O passage, east side of barracks.	Eight days under treatment with diarrhœa.
19	„ T. L.	22	4	Sept. 21	Kinsale	... ...	... ...	No. 5 Hut.	Six days under treatment with dirrahœa.
20	L.-Corp. J. G.	24	5	Sept. 28	Kinsale	... ...	... ...	G passage, north side of barracks.	Eight days under treatment with influenza.
21	Pte. W. B.*	23	5	Sept. 30	Camp	11 days in camp at Charles Ft.	From A passage, north side of barracks, Kinsale.	Tent at Charles Ft.	

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* This man first felt ill 17th September, two days before he marched out with the regiment from Kinsale to Charles Fort. He was in camp and did his duty until 28th September 1875, when, finding himself worse, he reported himself sick and was admitted into hospital there 28th September 1875, being transferred to the station hospital at Kinsale 30th September 1875.

In addition to the above, cases of enteric fever occurred during the year at Limerick, Haulbowline, Rocky Island, Dungarvan, Carlisle Fort, and Ballincollig. At Dungarvan, the patient, who was married and lived outside the barracks, contracted the disease from some of the inmates of the house in which he lodged, who were suffering from typhoid fever. At Carlisle Fort the cause was referred to the drinking water. The origin of the case at Ballincollig was traced by the Medical Officer to an untrapped drain in the shed where the man, who was a farrier in a cavalry regiment, used to work. This drain communicated directly with the sewer, and unpleasant smells were frequently noticed to proceed from it.

The following sanitary improvements have been effected during the year :—

Cork.—New cooking ranges furnished to the serjeants' mess kitchens and to some of the married quarters.

Kinsale.—Complete renewal of the pipes for conducting the rain-water into the underground tanks. New earth-closets constructed, and the old cesspits demolished and filled in. A range of new married quarters on the latest plan has been built, and will soon be ready for occupation.

Cahir.—New pipes have been laid down for furnishing an increased supply of water to the barrack and ablution rooms. Earth-closets are in course of erection, and new married quarters are in hand.

Clonmel.—Considerable improvements have been made in the system of drainage.

Kilkenny,—An earth-closet has been constructed for the Provost cells.

Waterford.—The means of cooking have been improved, and a Deane's oven provided. In the Infantry Barracks the well which furnishes the chief water supply of the barracks has been deepened, as that supply used to fail during dry weather.

Spike Island.—The lighting and ventilation of several rooms in the casemates barracks has been improved by making windows at the end opening into the ditch.

Buttevant.—Earth-closets for Officers, men, and hospital constructed.

Fermoy.—A range of married quarters has been commenced. In the old barracks a new cooking range has been provided for the Staff Serjeants' quarters, and the ventilation of a certain number of the barrack rooms improved. Little sheds have been built for the Cavalry and Artillery stables.

Limerick.—A new filter has been provided for the water-tank in the Castle Barracks and in the new barracks a cooking-range has been put up for the serjeants' mess.

Templemore.—Earth-closets have been commenced in lieu of the old cesspit latrines, which were in a most objectionable state. A gymnasinm has also been completed and taken into use.

Gymnasia.—Gymnasia now exist in the district at Cork, Fermoy, Limerick, Templemore, and Buttevant.

Section II.

On the Amount of Invaliding.

The number of men invalided in the whole force in the United Kingdom in each arm separately, is shown in the following Table :—

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		Troops generally.	Household Cavalry.	Dragoon Guards and Dragoons.	Royal Artillery (including the Depôt Brigade.)	Foot Guards.	Infantry Regiments.	Depôts.	Royal Engineers.
Strength		92,802	1,204	10,389	15,870	5,309	40,870	8,808	3,664
1875..	Number discharged as Invalids ..	2,394	7	310	428	105	1,093	481	65
	Ratio per 1,000 ..	25·80	5·81	29·84	26·97	19·78	26·74	54·61	17·74
1865-74. Ratio per 1,000		27·39	15·30	28·00	30·30	23·34	25·67	42·18	14·66

For the whole force, the proportion of men invalided is 3·86 per 1,000 lower than in the preceding year, a result which serves to account for the fractionally higher death-rate in the present year. The diminished amount of invaliding extended to every arm except Foot Guards, the proportion for which is almost the same in both years.

Section III.

On the Number constantly Sick in Hospital, of the Troops serving in the United Kingdom.

		Troops generally.	Household Cavalry.	Cavalry of the Line.	Royal Artillery.	Foot Guards.	Infantry Regiments.	Depôt Brigade, Royal Artillery.	Depôts.
Mean daily sick per 1,000 of the strength	1875 ..	40·47	28·70	44·93	43·05	46·04	35·02	50·11	43·58
	1865–74	40·56	29·71	38·49	42·50	44·01	35·56	50·10	*41·65
		Days.	Days.	Days.	Days.	Days.	Days.	Days.	Days.
Average sick time to each Man in the course of the Year	1875 ..	14·77	10·48	16·40	15·71	16·80	12·82	18·29	15·91
	1865–74	14·81	10·85	14·05	15·51	16·06	12·98	18·29	*15·20
Average duration of the Cases	1875 ..	17·77	16·38	18·10	18·47	19·61	17·06	16·45	17·56
	1865–74	17·76	17·34	18·40	17·70	22·40	17·95	17·21	*17·05

* Exclusive of 1873.

Compared with the results in the preceding year, the proportions of constantly sick and the average sick time to each soldier are, in the whole force, higher by 1·86, and by ·68 per 1,000 men respectively, and are also higher for each arm except Household Cavalry, and Depôt Brigade Royal Artillery. The excess in the instance of Infantry is 1·48 and ·58 per 1,000 men respectively. The average duration of each case of sickness in the whole force, also exceeds the proportion for 1874 by 1·01 per 1,000 men, and is higher for every arm except Household Cavalry, Foot Guards, and Depôt Brigade Royal Artillery, a result, the probable explanation of which is found in the reduced rate of invaliding for the present year.

Section IV.

On the Influence of Age on the Mortality of the Troops serving in the United Kingdom.

United Kingdom.

The rates of mortality for the different ages (arranged in quinquennial periods), in the several arms of the service, are shown in the following Table:—

Corps.	Annual Ratio of Deaths per 1,000 Living, at the following Ages:— Under 20.	20 and under 25.	25 and under 30.	30 and under 35.	35 and under 40.	40 and upwards.
Household Cavalry	..	5·45	9·32	4·50	8·26	2·30
Cavalry	4·01	1·25	8·68	8·69	11·94	31·65
Royal Artillery	4·85	5·34	9·25	14·83	18·47	20·07
Foot Guards	1·36	7·26	7·87	5·37	10·53	30·57
Infantry Regiments	3·50	4·56	8·52	10·73	19·01	19·45
Depôt Brigade Royal Artillery, Depôts and Brigade Depôts..	3·23	5·65	9·00	20·55	25·55	34·53
Ditto, ditto, ditto, 1865–74	4·19	7·72	10·86	19·49	22·84	22·33
Average of preceding, exclusive of all Depôts	3·58	4·40	8·68	10·82	17·24	22·20
Ditto, ditto, 1865–74	3·03	5·27	6·35	12·24	17·55	23·82
Civil Male Population: England and Wales ..	7·41	8·42	9·21	10·23	11·63	13·55
Civil Male Population: Healthy Districts ..	5·83	7·30	7·93	8·36	9·00	9·86

The results in the present agree with those in preceding years, in showing lower death-rates for soldiers in the first three groups of ages than those for men of the same ages in the healthy districts of England and Wales; and, commencing with the ages 30 and under 35, higher rates for the remaining groups, that for men of 40 and upwards, being considerably more than double the rate with which it is compared.

Section V.

On the Recruiting of the Army.

The annual medical reports show that 25,878 recruits were inspected in 1875; of these, 20,722 were examined by Army Medical Officers and 5,156 by Civil Medical Practitioners. The rejections on primary inspection amounted to 6,261, and on secondary inspection to 401, making a total of 6,662, or 257·44 per 1,000 of those examined.

	Number of Recruits Primarily Inspected.	Number Rejected. On Primary Inspection.	On Secondary Inspection.	Total.	Ratio of Rejections per 1,000 Inspected. Primary Inspections.	Both Primary and Secondary Inspections.
By Army Medical Officers	20,722	5,424	401	6,662	261·75	257·44
By Civil Medical Practitioners ..	5,156	837			162·34	
Total	25,878	6,261	401	6,662	241·94	257·44

United Kingdom.

The proportion of recruits rejected at primary inspection by Army Medical Officers is considerably, and by Civil Medical Practitioners slightly, below that of 1874, and at both primary and secondary inspection the ratio is 19·78 per 1,000 less than in that year.

The native countries of the recruits, the ratios of the rejections, and the proportion per 1,000 furnished by each country are given in the following Table:—

Native Countries of Recruits.	Examined by Army Medical Officers.		Examined by Civil Medical Practitioners.		Rejected on Secondary Inspection.	Total.		Proportion Rejected per 1,000 Inspected.	Proportion per 1,000 of Recruits furnished by each Country.
	Inspected.	Rejected.	Inspected.	Rejected.		Primarily Inspected.	Rejected at Primary and Secondary Inspections.		
England and Wales... ...	14,110	3,779	4,346	726	311	18,456	4,816	260·94	713·2
Scotland	2,552	634	155	17	37	2,707	688	254·16	104·6
Ireland	3,840	959	637	93	52	4,477	1,104	246·59	173·0
British Colonies and Foreign Countries... ...	220	52	18	1	1	238	54	226·89	9·2
Total ...	20,722	5,424	5,156	837	401	25,878	6,662	257·44	1000·0

The ratios of rejections are lower for recruits born in the United Kingdom, and higher for those born abroad, than in 1874; the highest ratio being for Englishmen, and the lowest for foreigners; for the former, however, it is much lower than in 1874, while for the latter it is somewhat higher. The proportion of recruits furnished by Ireland is less, and by the other countries greater, than in the preceding year.

The following Table shows the number of recruits inspected and rejected for each Arm of the Service, the ratios of rejections, and the proportions per 1,000 inspected for each Arm:—

	Examined by Army Medical Officers.		Examined by Civil Medical Practitioners.		Total Primary Inspections.		Rejected on Secondary Inspection.	Total Rejections at Primary and Secondary Inspections.	Ratio of Rejections per 1,000 Recruits Inspected.	Proportion per 1,000 of Recruits inspected for each Arm.
	Inspected.	Rejected.	Inspected.	Rejected.	Inspected.	Rejected.				
Enlisted for— Household Cavalry	202	68	...	...	202	68	6	74	366·34	7·8
Cavalry of the Line ...	3,228	718	433	53	3,661	771	18	789	215·51	141·5
Royal Artillery	3,635	939	705	86	4,340	1,025	39	1,064	245·16	167·7
Royal Engineers	687	188	9	...	696	188	...	188	270·11	26·9
Foot Guards	507	154	570	152	1,077	306	135	441	409·47	41·6
Infantry and Departmental Corps	12,463	3,357	3,439	546	15,902	3,903	203	4,106	258·21	614·5
Total	20,722	5,424	5,156	837	25,878	6,261	401	6,662	257·44	1000·0

The rejections in all the Arms are lower than in 1874, the decrease being most marked in the Household Cavalry; as for the previous year, the Foot Guards show the highest ratio of rejections, and the Cavalry of the Line the lowest.

TABLE showing the Number of Recruits Rejected in 1875, with the causes arranged in Classes, and the Ratio per 1,000 in each Class.

United Kingdom.

Causes of Rejection, in Classes.	Recruits Rejected on Primary Inspection.						Rejections on Secondary Inspection.	Total Rejections on Primary and Secondary Inspections.	
	Examined by Army Medical Officers.		Examined by Civil Medical Practitioners.		Total.				
	20,722		5,156		25,878			25,878	
	Numbers Rejected.	Ratio per 1,000 Rejected.	Numbers Rejected.	Ratio per 1,000 Rejected.	Numbers Rejected.	Ratio per 1,000 Rejected		Numbers Rejected.	Ratio per 1,000 Rejected.
1. Syphilis	260	12·55	48	9·31	308	11·90	19	327	12·63
2. Scrofula	106	5·12	10	1·94	116	4·48	3	119	4·60
3. Phthisis	83	4·01	16	3·10	99	3·83	2	101	3·90
4. Impaired Constitution	127	6·13	17	3·30	144	5·57	28	172	6·65
5. Muscular Tenuity and Debility... ...	961	46·38	70	13·58	1,031	39·84	69	1,100	42·51
6. Other General Diseases	108	5·21	7	1·36	115	4·44	2	117	4·52
7. Diseases of Nervous System	21	1·01	2	·39	23	·89	2	25	·96
8. Weakness of Intellect	25	1·21	2	·39	27	1·04	4	31	1·20
9. Defective Vision	956	46·14	124	24·05	1,080	41·73	49	1,129	43·63
10. Diseases of Eyes and Eyelids	109	5·26	2	·39	111	4·29	9	120	4·64
11. Diseases of Nose and Mouth	9	·43	...	...	9	·35	...	9	·35
12. Disease of Ears	5	·24	1	·19	6	·23	1	7	·27
13. Deafness	43	2·08	...	...	43	1·66	...	43	1·66
14. Impediment of Speech	12	·58	1	·19	13	·50	3	16	·62
15. Disease of Heart	410	19·79	91	17·65	501	19·36	50	551	21·29
16. Diseases of Arteries (Aneurism) ...	13	·63	...	...	13	·50	3	16	·62
17. Disease of Veins (Varix)	374	18·05	82	15·90	456	17·62	16	472	18·24
18. Disease of Lungs (except Phthisis) ...	39	1·88	10	1·94	49	1·89	7	56	2·16
19. Loss or Decay of many Teeth	133	6·42	12	2·33	145	5·60	11	156	6·03
20. Hernia	187	9·02	80	15·52	267	10·32	17	284	10·97
21. Laxity of Abdominal Rings	75	3·62	13	2·52	88	3·40	3	91	3·51
22. Hæmorrhoids	40	1·93	6	1·16	46	1·78	...	46	1·78
23. Diseases of the Urinary Organs ...	20	·97	7	1·36	27	1·04	...	27	1·04
24. Varicocele	231	11·15	83	16·10	314	12·13	12	326	12·60
25. Other Diseases of the Genital Organs (not Syphilitic)	31	1·50	5	·97	36	1·39	7	43	1·66
26. Defects of Upper Extremities, from Fracture, Contraction, Luxation, &c.	132	6·37	18	3·49	150	5·80	12	162	6·26
27. Defects of Lower Extremities, from Fracture, Contraction, Luxation, &c.	193	9·31	23	4·46	216	8·35	21	237	9·16
28. Flat Feet	108	5·21	18	3·49	126	4·87	9	135	5·22
29. Diseases of Joints	47	2·27	8	1·55	55	2·13	5	60	2·32
30. Other Affections of Bones and Muscles	42	2·03	1	·19	43	1·66	9	52	2·01
31. Ulcers, Wounds, and Cicatrices ...	89	4·30	7	1·36	96	3·71	6	102	3·94
32. Other Affections of the Cutaneous System	92	4·44	20	3·88	112	4·33	1	113	4·37
33. Malformation of Ears	1	·05	...	...	1	·04	...	1	·04
34. ,, ,, Nose and Mouth ...	2	·10	...	...	2	·08	...	2	·08
35. ,, ,, Chest and Spine ...	291	14·00	50	9·70	341	13·18	18	359	13·87
36. ,, ,, Urin: or Gen: Organs ...	7	·34	...	...	7	·27	1	8	·31
37. Marks of Punishment, or of letter D. or B. C.	15	·72	...	...	15	·58	1	16	·62
38 Marks of Cupping, Blistering, &c. ...	27	1·30	3	·58	30	1·16	1	31	1·20
Total Rejected	5,424	261·75	837	162·34	6,261	241·94	401	6,662	257·44

United Kingdom.

Syphilis, impaired constitution, muscular tenuity, defective vision, diseases of the heart and of the veins, loss of teeth, hernia, varicocele, defects of the upper and lower extremities, flat feet, and malformation of the chest and spine were, as in 1874, the chief causes for rejection; and of these classes the proportions rejected for muscular tenuity, loss of teeth, and varicocele are higher, and for the remainder lower, than in the preceding year. Rejections for defective vision are shown in a separate class this year, and are not entered, as heretofore, with diseases of the eye. This class (defective vision) shows a higher ratio of rejections than any other, but is nearly equalled by that of muscular tenuity and debility, the former exceeding the latter by 1·12 per 1,000 only.

Table showing the ages of all recruits, as given at their primary inspection, and the proportion per 10,000 at each age.

Ages.	Numbers Inspected.			Proportion in 10,000.		
	By Army Medical Officers.	By Civil Medical Practitioners.	Total.	Examined by Army Medical Officers.	Examined by Civil Medical Practitioners.	Total.
Boys under 17	744	45	789	359	87	305
From 17 to 18	368	56	424	2,177	109	164
„ 18 to 19	5,405	1,369	6,774	2,608	2,655	2,618
„ 19 to 20	4,685	1,259	5,944	1,261	2,442	2,297
„ 20 to 21	2,729	739	3,468	317	1,433	1,340
„ 21 to 22	2,003	528	2,531	967	1,024	978
„ 22 to 23	1,734	434	2,168	837	842	838
„ 23 to 24	1,405	312	1,717	678	605	663
„ 24 to 25	1,313	381	1,694	634	739	655
25 and upwards	336	33	369	162	64	142
Total	20,722	5,156	25,878	10,000	10,000	10,000

In dividing (as in previous years) the recruits into two classes—viz., into those under 20 years of age and those of 20 years and upwards—it will be found that the latter are in excess, by 224 per 10,000, of those of the corresponding class in 1874; the ratios being higher, at all the ages, in this class except between 20 and 21, at which age the proportion is much lower. Among recruits under 20 years, there is a considerable increase in the proportion of boys under 17 years, a considerable decrease between 17 and 19, and a slight decrease between 19 and 20.

Table showing the heights of recruits and the proportion per 10,000 at each height:—

United Kingdom.

Heights.	Number Inspected.			Proportion in 10,000 recruits examined.		
	By Army Medical Officers.	By Civil Medical Practitioners.	Total.	By Army Medical Officers.	By Civil Medical Practitioners.	Total.
Ft. In. Ft. In.						
Under 5 3 ..	683	41	724	330	79	280
5 3 to 5 4 ..	160	6	166	77	12	64
5 4 ,, 5 5 ..	2,085	232	2,317	1,006	450	895
5 5 ,, 5 6 ..	5,406	1,424	6,830	2,609	2,762	2,639
5 6 ,, 5 7 ..	4,448	1,220	5,668	2,146	2,366	2,190
5 7 ,, 5 8 ..	3,689	1,004	4,693	1,780	1,947	1,813
5 8 ,, 5 9 ..	2,171	589	2,760	1,048	1,142	1,067
5 9 ,, 5 10 ..	1,152	372	1,524	556	722	589
5 10 ,, 5 11 ..	545	164	709	263	318	274
5 11 ,, 6 0 ..	222	64	286	107	124	111
6 0 and upwards ..	161	40	201	78	78	78
Total	20,722	5,156	25,878	10,000	10,000	10,000

On comparing this Table with the corresponding one of last year, a considerable decrease is found in the ratios of recruits comprised in the two classes between 5 ft. 4 in. and 5 ft. 6 in., and an increase in all the other classes. The proportion under 5 ft. 6 in. is 553 per 10,000 lower than in 1874.

Table showing the weights of 14,222 recruits examined by Army Medical Officers, and the proportion per 10,000 at each weight. There is no information on this head available respecting those primarily inspected by Civil Medical Practitioners and by Army Medical Officers at many of the smaller stations :—

Weights.	Numbers Weighed.	Proportion per 10,000.
lbs. lbs.		
Under 100	466	328
From 100 to 110	110	77
,, 110 to 120	1,646	1,157
,, 120 to 130	3,791	2,666
,, 130 to 140	4,142	2,912
,, 140 to 150	2,593	1,823
,, 150 to 160	947	666
,, 160 to 170	360	253
,, 170 and upwards	167	118
Total	14,222	10,000

The proportions of recruits at the more advanced ages and at greater heights exceeding those of 1874, a higher standard of weight may naturally be expected. There is, however, an increase of 113 only per 10,000 of recruits weighing above 120 lbs. ; a greater increase than this might have been looked for, since the proportions of recruits measuring over 5 ft. 6 in., and of those over 20 years of age are respectively 553 and 224 per 10,000 higher than in the previous year ; the decrease occurring entirely among those weighing between 100 and 110 lbs. and 120 and 130 lbs. ; at all the other weights the ratios are higher.

United Kingdom.

The state of education among recruits primarily inspected by Army Medical Officers is shown in the following Table. There is no information available on this head respecting those examined by Civil Medical Practitioners.

	Numbers examined.	Ratio per 1,000.
Unable to read	3,180	153·5
Able to read only	1,886	91·0
Able to read and write	15,656	755·5
Total	20,722	1000·0

The proportion of recruits able to read and write is higher, and of the other two classes lower, than in the previous year.

The occupations of recruits previous to enlistment, the proportion rejected, and the proportion furnished by each group, are shown in the following Table :—

Occupations of Recruits.	Number Inspected.	Rejected at Primary Inspection.	Rejected at Secondary Inspection.	Total Rejected.	Ratio per 1,000 Rejected.	Proportion per 1,000 of Recruits furnished by each group of occupations.
1. Labourers, Husbandmen, Servants, &c.	15.282	3,691	232	3,923	256·7	590·5
2. Manufacturing Artisans (as Clothworkers, Weavers, Lace Makers, &c.)	3,058	831	35	866	283·2	118·2
3. Mechanics employed in Occupations favourable to physical development (as Carpenters, Smiths, Masons, &c.)	4,545	1,126	91	1,217	267·8	175·6
4. Shopmen and Clerks	1,927	491	40	531	275·6	74·5
5. Professional Occupations, Students, &c.	277	46	1	47	169·7	10·7
6. Boys under 17 years of age ..	789	76	2	78	98·9	30·5
Total	25,878	6,261	401	6,662	257·44	1000·0

A larger proportion of manufacturing artisans and of mechanics was rejected than in 1874; in the other groups the proportions are lower. Manufacturing artisans show the highest ratio of rejections, and boys under 17 years the lowest. There is a falling off in the proportion of labouring men and of mechanics, and an increase in each of the other groups.

The following Table shows the condition, as to vaccination, of recruits found fit for the Service on primary inspection by Army Medical Officers. No information is available respecting those primarily inspected by Civil Medical Practitioners :—

United Kingdom.

	Number of Recruits found fit for the Service.	Proportion per 1000.
Had marks of vaccination	13,933	910·7
Had marks of smallpox	784	51·3
Had neither marks of vaccination nor smallpox	581	38·0
Total	15,298	1000·0

When compared with the corresponding Table of last year there is a slight increase in the proportion of recruits having marks of vaccination, and a decrease in those having marks of smallpox. The proportion without marks is almost identical with that of 1874.

III. ON THE HEALTH OF THE TROOPS SERVING IN THE MEDITERRANEAN.

Section I.—*Sickness and Mortality.*

I.—GIBRALTAR.

STATISTICAL REPORT.

Gibraltar.

THE average annual strength of the force serving at Gibraltar in 1875, was 4,719 non-commissioned officers and men; the admissions into hospital among them were 2,930; the deaths, including those of 7 invalids, were 26; the rate of admissions is therefore 620·9, and that of deaths 5·50, per 1,000 men; the first is a little higher, the last is 1·13 per 1,000 lower than the corresponding rate of the preceding year, both are lower than the rates of the average of ten years, that of deaths, materially so.

The corps of which the garrison was composed, and certain of the most important of their health statistics, are shown in the following Table :—

Gibraltar.

Corps.	Completed years of residence in the Mediterranean Commands.	Average Annual Strength.	Admissions into Hospital.	Died.			Invalids sent Home.	Average Daily Sick.	Annual rate per 1,000 of strength.				Average sick time to each Soldier.	Average duration of cases of sickness.
				At Gibraltar.	Of Invalids.	Total.			Admitted.	Died.	Invalids sent Home.	Daily Sick.	Days.	Days.
17th Brigade Royal Artillery ..	1	1,002	720	4	2	6	27	51·13	718·6	5·99	26·95	51·03	18·62	25·91
Royal Engineers	..	347	196	..	2	2	9	9·35	564·8	5·76	25·94	25·95	9·84	17·41
1st Battalion 4th Foot	1	649	286	2	1	3	7	15·99	440·7	4·62	10·79	24·64	9·07	20·58
2nd ,, 23rd ,, ...	1	648	436	3	..	3	11	24·92	672·8	4·63	16·97	38·46	14·04	20·86
31st Foot	8	648	230	2	1	3	8	15·50	354·9	4·63	12·35	23·92	8·56	24·12
69th ,, ...	2	629	319	5	..	5	16	21·05	551·8	7·95	25·44	33·17	12·22	22·01
2nd Battalion Rifle Brigade ..	1	667	671	2	..	2	21	40·31	1006·0	3·00	31·48	60·43	22·06	21·93
Army Service Corps	..	57	24	1	..	1	1							
Army Hospital Corps	..	38	16	..	..	..	2	2·97	325·6	7·75	46·51	23·03	..	..
Staff and attached Men ..	..	34	2	..	..	..	3							
						*								

* In addition to the above, one Invalid of the 81st Foot, sent home before that Corps left Gibraltar for India, died at Netley in 1875.

Gibraltar.

The only change in the composition of the garrison during the year, was that caused by the arrival of a company of Engineers from Bermuda, on the 1st of February.

The corps which show the most favourable results as regards health, are the 1st Battalion 4th Foot, which had been one year at the station, and the 31st Foot, which had served eight years abroad (at Malta and at Gibraltar). The 17th Brigade Royal Artillery, and the 2nd Battalion Rifle Brigade, both of which completed their first year of service at the station during the year, show the most unfavourable results in all particulars, with the exception, that the death rate in the last-named corps is very low. The results in the case of the 2nd Battalion 23rd Foot which corps, like the 2nd Battalion Rifle Brigade had served in the Gold Coast Expeditionary Force, and which arrived at the station in the same year, are favourable, its admission rate is moderate, its death and daily sick rates are low, its invaliding rate however is high.

The classes and orders of diseases, by which the sickness and mortality in the Command were caused, are shown in the following Table :—

Orders.	Diseases.	1875. Average Strength, 4,719.						1869-74.		1875. Infantry at Home.	
			Deaths.			Annual ratio per 1,000 of Strength.		Annual ratio per 1,000 of Strength.		Annual ratio per 1,000 of Strength.	
		Admitted into Hospital.	At Gibraltar.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*										
1	Febrile Group ..	594	6	1	7	125·9	1·49	82·3	1·43	42·8	·66
2	Constitutional „ ..	529	5	1	6	112·1	1·27	103·7	1·43	123·9	2·84
	II. *Local Diseases.* Diseases of the—										
1	Nervous System ..	31	..	..	..	6·6	..	7·4	·30	12·2	·83
2	Eye	94	..	..	..	19·9	..	17·8	..	20·1	..
3	Ear	3	..	..	..	·6	..	4·1	..	4·0	..
4	Nose	2	..	..	..	·4	..	·7	..	·7	·02
5	Circulatory System ..	59	2	3	5	12·5	1·06	10·8	·90	17·3	1·13
6	Absorbent „ ..	15	..	..	..	3·2	..	4·4	..	15·0	..
7	Ductless Glands ..	..	..	..	..	..	..	·2	..	·1	..
8	Respiratory System ..	218	1	..	1	46·2	·21	43·5	·87	97·1	1·71
9	Digestive „ ..	404	2	..	2	85·6	·42	81·7	·15	110·6	·57
10	Urinary „ ..	212	1	1	2	44·9	·42	70·7	·30	65·0	·25
11	Generative „ ..	45	..	..	..	9·6	..	15·1	..	10·0	..
12	Organs of Locomotion	19	..	..	..	4·0	..	5·2	·08	4·8	·02
13	Cellular Tissue ..	70	..	..	..	14·8	..	13·8	..	21·8	..
14	Cutaneous System ..	191	..	..	..	40·5	..	65·2	..	87·8	·02
	III. *Conditions, &c.*										
	Debility	46	..	..	..	9·8	..	4·6	..	11·7	..
	IV. *Poisons* ..	11	1	..	1	2·3	·21	8·2	·15	2·6	·10
	V. *Injuries.*										
2	Accidental	377	1	..	1	79·9	·21	94·1	·45	102·7	·54
3	Homicidal	..	..	..	..	..	..	..	..	..	·02
4	Self-inflicted	1	..	..	..	·2	..	..	·23	·2	·15
5	Judicial	..	..	..	..	..	..	·2	..		·02
	VI. *Surgical Operations*	..	..	1	1	..	·21		..	·2	..
	No appreciable Disease	9	..	..	..	1·9	..	·9	..	1·4	..
	Unknown	..	..	..	..	..	..	..	..	..	·02
	Total	2,930	19	7	26	620·9	5·50	634·6	6·29	752·0	8·90
	Average of 10 Years 1865–74	..	..	..	..	656·6	8·31	..	..	..	..

Gibraltar.

General Diseases.—Compared with the preceding year, there is a considerable increase in the rate of admissions for diseases of this class, whilst the rate of deaths is lower; the increased prevalence occurred in both orders of the class, and in both is associated with reduced mortality.

The admissions and deaths, from the principal diseases of this class, are shown in the following Table:—

General Diseases.	Admitted.	Died.	Annual ratio per 1,000. 1875. Admitted.	Annual ratio per 1,000. 1875. Died.	Annual ratio per 1,000. 1869–74. Admitted.	Annual ratio per 1,000. 1869–74. Died.
Febrile—						
Eruptive Fevers	1	..	·2	..	3·0	·07
Continued ,, ...	428	6	90·5	1·28	64·9	1·21
Paroxysmal ,, ...	145	..	30·9	..	9·9	·11
Influenza	..	..	..	..	2·3	..
Erysipelas	14	..	3·0	..	1·7	..
Other diseases of this group	7	1	1·5	·21	·5	·04
Total of Febrile Group.. ..	595	7	126·1	1·49	82·3	1·43
Constitutional—						
Rheumatism	263	..	55·7	..	40·6	·04
Syphilis	227	..	48·1	..	51·8	·04
Scrofula, Phthisis, &c.	32	6	6·8	1·27	8·3	1·24
Scurvy and Purpura	..	..	..	..	·2	..
Anæmia	4	..	·9	..	2·0	..
Other diseases of this group	3	..	·6	..	·8	·11
Total of Constitutional Group ..	529	6	112·1	1·27	103·7	1·43

Eruptive Fevers.—One admission only, due to vaccination, is returned in this group of fevers.

Continued Fevers.—The rate of prevalence of fevers of this nature is nearly one-third higher, but the rate of deaths due to them is one-third less, than the corresponding rate of 1874.

Typhus Fever.—One admission is returned, that of a man of the Royal Artillery, who was quartered at Rosia Barracks; the only remark made respecting the case is, that its cause could not be satisfactorily made out.

Enteric Fever.—Twenty-one admissions from this fever are returned; five of the cases terminated fatally. The men attacked belonged to five different regiments, eleven of the whole number to the 2nd Battalion Rifle Brigade, four to the 2nd Battalion 23rd, three to the 69th, two to the 1st Battalion 4th Foot, and one to the Royal Artillery, so that generally speaking the greatest prevalence of the disease was in the regiments newly arrived, or lately arrived in the Command; the most important exception to this, was in the case of the Royal Artillery. On the other hand, the 31st Foot which had served abroad for more than eight years, and the Royal Engineers, the different companies of which had also been abroad for some time, return no admissions for enteric fever in the year. The experience of one year would not be decisive as to the relation existing between the prevalence of enteric fever, and locality in Gibraltar, but for comparison a record of its prevalence in the different barracks, would have been useful; as the regiments were in detachments, and changed barracks during the year, the knowledge cannot be arrived at from an examination of the returns. The Medical Officer of the 2nd Battalion Rifle Brigade, notes a fact which if supported by further observation, may throw light on the causes which determine the distribution of attacks of enteric fever in the men of the garrison of Gibraltar; his remarks are: "Eleven cases occurred in the batta- *Gibraltar.* "lion during the year; the first case in the month of September; the evidence "I think points to the Camp at the North Front, as the place where the "disease was contracted; nearly all the men who had it were taken sick "there, or some time soon after being quartered at the Camp." All of the admissions for enteric fever, except three, took place in the last quarter of the year.

Simple Continued Fever.—362 admissions were due to *simple continued fever*, and 34 to *febricula*; one death is returned as caused by the first-named disease.

Paroxysmal Fevers.—The rate of admissions for fevers of this nature, is double that of the preceding year; no deaths were caused by them. 89 admissions are returned as having been due to *Ague*, and 56 to *Remittent fever*; half of the admissions for paroxysmal fevers were men of the 2nd Battalion Rifle Brigade, which in 1874 had served with the Gold Coast Expeditionary Force; the 2nd Battalion 23rd Foot (which also served with the same force), returns comparatively few admissions (19 in all) for fevers of this nature; the 17th Brigade Royal Artillery, returns 42, being a larger number than the admissions for the same kind of fevers of all the corps together, excepting the 2nd Battalion Rifle Brigade. The comparatively high rate of prevalence of paroxysmal fevers in the Royal Artillery, is attributed to the circumstance, that the men of the Brigade when in England, were quartered in the marshy districts bordering on the Thames, viz., at Sheerness, the Isle of Grain, and Tilbury Fort.

The Medical Officer of the 2nd Battalion Rifle Brigade, states in his report that: "the malarious fevers this year have been accompanied with "diarrhœa, leading often to a suspicion of enteric fever, but the type is different." Writing on the subject of simple continued fever, the Medical Officer of the station hospital remarks—"many of these cases, often vaguely alluded to as "'rock fever,' vary considerably in their progress from the usual course of "such fevers, and appear to me to be of a hybrid character, due to the "combined effects of enteric, and malarial poisoning, and consequently not "characterized by all the distinctive symptoms of either," in the same connection he states that "the thermometrical observations varied considerably from those usually recorded in enteric fever, although characteristic "rose-coloured spots were sometimes observed, and diarrhœa frequently "formed an urgent symptom."

Erysipelas.—Five of the 14 admissions for this disease were those of men of the 1st Battalion 4th Foot, and four were those of men of the Royal Artillery.

Other Diseases.—One admission for diphtheria is returned, that of a man of the 2nd Battalion Rifle Brigade. The death was that of an invalid from the Royal Engineers, sent home on account of stricture; it was proximately due to pyæmia.

Rheumatism.—The rate of prevalence a little exceeded that of the preceding year, a circumstance in harmony with the increased prevalence of "fever."

Syphilis.—The rate of admissions for this disease, is higher than that of the preceding year, by 18·9 per 1,000 men, but it is lower than the average of the preceding six years; its proportional prevalence was greatest in the Rifle Brigade, and the 2nd Battalion 23rd Foot, and least in the Royal Engineers.

Scrofula, Phthisis, &c.—The rate of prevalence for diseases in this group is a little lower than in 1874, whilst that of deaths is a little higher; the admissions for phthisis were not materially more numerous in one corps than in another.

LOCAL DISEASES.—*Diseases of the Nervous System*, caused fewer admissions than in 1874; one-third of the whole was due to neuralgia.

Diseases of the Eye.—A relatively considerable increase occurs in the rate of admissions from these diseases on that of the preceding year, caused by the greater prevalence of conjunctivitis; the Principal Medical Officer states that this was due to the heat and glare of an unusually hot summer, and that the affection was not confined to any particular regiment.

Gibraltar.

Diseases of the Circulatory System, were in a rate a little in excess of that of the preceding year, and of the average, but in all, only 59 admissions are returned, of which 40 were on account of palpitation ; the 69th Foot returns the greatest number of admissions for this disease.

Diseases of the Respiratory System.—These diseases are in a slightly lower rate of prevalence than in 1874, and corresponding with this, the rate of deaths is also lower ; of the 218 admissions in the group. 206 were due to bronchitis. Respecting the death of a man of the 31st Foot returned as due to pneumonia, the Medical Officer of the regiment states that the cause of death was "typhoid pneumonia," from the remark of the Medical Officer who treated the case, it would appear that the man had been ailing for two or three weeks before admission, and that he was admitted for diarrhœa ; after death, examination showed that the small intestines were "slightly "inflamed ; no deposit in the glands."

Diseases of the Digestive System.—The rate of prevalence of diseases of this order is lower than that of 1874, by 8·1 per 1,000 men, the rate of deaths is almost the same in both years. One-fourth of the admissions was from dyspepsia ; the relatively large number of admissions from colic (45) raises the suspicion that the wine drank by the men. may have been unwholesome. 11 admissions were due to tape-worm. One of the two deaths in this order was due to hepatitis ; the other resulted proximately from hæmorrhage, caused by an ulcer in the stomach.

Diseases of the Urinary System.—The rate of admissions differs only fractionally from that of the preceding year.

CONDITIONS, &c.—The rate of admissions for *debility*, is double that of 1874 ; no doubt this is explained by the greater prevalence of "fever" in the present year.

POISONS.—There were only 11 admissions in this class, giving a rate less than the half of that of 1874 ; all were due to delirium tremens, which disease caused death in one instance ; as in the preceding year the admissions were relatively most numerous in the Royal Engineers ; there were no admissions for delirium tremens in the 1st Battalion 4th Foot, in the 31st, or in the 2nd Battalion Rifle Brigade.

INJURIES.—*Accidental Injuries.*—The rate of admissions is 30·5 per 1,000 men lower than in the preceding year ; one injury proved fatal, that occurring to a soldier of the 2nd Battalion 23rd, who was accidentally shot when on convict guard.

Self-Inflicted Injuries.—Only one admission from an injury of this nature took place.

Officers.

The average annual strength of officers in the Command was 172 ; of these, 129, being in the rate of 750· per 1,000, were placed on the sick report during the year ; two died, being in the rate of 11·63, and 12, being 69·77 per 1,000 were granted sick leave to England ; these results compare unfavourably with the corresponding ones referring to the non-commissioned officers and men, but as the number of officers furnishing the data is small, no fair comparison between the two classes can be made. Two of the illnesses were due to enteric fever, an attack of which disease proved fatal to an officer of the 1st Battalion 4th Foot.

Women.

The average annual strength of the women (wives of non-commissioned officers and men) was 458 ; the sickness amongst them was in the rate of 498, and the mortality in the rate of 10·92, per 1,000. Four of the five deaths were due to enteric fever, the other was caused by ulcer of the stomach. The prevalence of "fever" was greatest amongst the women of the 1st Battalion 4th Foot, and of the 2nd Battalion 23rd Foot, but in both cases the prevalence was much restricted to women residing in certain buildings ; in the case of the first-named regiment, the new quarters at Scud Hill, and the quarters at Rosia, in the case of the last-named regiment, the quarters in Daninos' Buildings.

Children.

Gibraltar.

The average annual strength of the children of the non-commissioned officers and men in the Command, was 925; the rate of sickness among them is 350, and that of deaths 33·51, per 1,000.

The most prevalent diseases were simple continued fever, bronchitis, and diarrhœa; eruptive fevers were comparatively infrequent, only 12 cases were treated; two children were attacked by diphtheria, one of them fatally. Only one case of enteric fever is returned, but the remarks of the Medical Officer of the 1st Battalion 4th Foot have a bearing on this matter, they are—"I may state that in my opinion this fever was *enteric*, for whether called, "simple continued, typhoid, remittent, or diarrhœa, (as it was apt to be when "occurring in children), it usually involved the bowel, and bowel glands, more "or less."

Sanitary Report.

Surgeon-General Balfour reports:—"The following appear to be the most important sanitary requirements and defects in the Garrison:

General.—1. A Sanatorium at Windmill Hill to which convalescents from fevers, and others requiring change, might be sent; quarters for two officers to form part of it; this would in many cases save the necessity of sick leave to England. 2. Hospital for the treatment of wives and children of soldiers; this (although authorised), has not yet been provided. 3. A drying closet attached to each barrack, to enable the men coming off duty in wet weather to have their clothes dried. This is urgently required, as very many of the barrack rooms have no fireplaces, and the men have no means of drying their clothes, but must continue to wear them wet or very damp. 4. A good recreation ground for the troops. 5. Married quarters in place of Daninos Buildings (hired) which are unfit for occupation, and are a source of disease among the occupants."

Under the head of *Local Requirements* Dr. Balfour indicates a number of minor alterations and improvements, as necessary on sanitary grounds—in the way of drainage, ventilation and warming, &c., of the different buildings occupied by the troops; and he remarks that all the latrines at the station hospital require reconstruction, as they are of antiquated pattern, imperfectly flushed and offensive in hot weather.

"*Daninos Buildings* (hired married quarters) should be condemned as unfit for occupation, and replaced by new quarters. In the meantime the washhouse is quite inadequate, and should be enlarged by taking in room No. 17, and erecting additional boilers.

Rosia Married Quarters, are as reported last year. They should be taken down and replaced by new quarters.

From the list of sanitary services furnished by the Commanding Royal Engineer, it will be seen that while many small and not unimportant improvements have been effected, no great sanitary work has been carried out during the year. At Buena Vista Block Barracks louvred ventilators are at present being introduced into the upper rooms, and it is hoped will be found beneficial.

Diet.—During the summer preserved Australian Meat was issued to the troops once a week. It was not generally liked by the men, but did not seem in any way to affect their health. I think it might be desirable, if it could be so arranged, to issue mutton once a week as I have reason to believe the men get tired of the monotony of beef.

Clothing.—In the beginning of summer helmets were taken into use by the troops generally. They were light, comfortable, and a most efficient protection for the head against the sun's rays. I believe they were much liked both by officers and men. The men of the Royal Engineers continued to wear their woollen clothing through the summer. I beg strongly to recommend the issue of suitable summer clothing to this corps, which from the nature of its duties seems to require it more than any other in the Garrison.

Gibraltar. Considering the frequent alternations of temperature here, the hot days and comparatively cold nights at some seasons, the co-existence of a hot sun and chilly wind, I think it would be very desirable to introduce flannel shirts into general use among the troops instead of calico. I have no doubt it would tend to reduce the amount of bronchitis, and of the serious pulmonary disease to which it often gives rise.

Drainage.—The drainage works at Rosia and Europa, and those for the supply of North Front water at Windmill Hill and Europa, are rapidly advancing, and will probably be completed before midsummer. I was dissatisfied with the manner in which this was being done, as the water and sewer pipes were being laid in close proximity to each other. On a representation to His Excellency the Governor this was stopped, and the portion which had already been done in this manner was ordered to be re-laid.

Water Supply.—The question of water supply has given rise to some anxiety owing to the deterioration in quality of the North Front water during the summer. It had in it a large amount of chlorides. The question has, I understand, been referred to Mr. Ramsay, the head of the Government School of Mines and Director of the Geological Survey, for his opinion as to the practibility of improving it by deep borings. The water does not seem to have proved a cause of disease, but it is unpleasant to the taste and very hard. The supply of rain water in the tanks was very low but the winter rains have refilled them."

II.—MALTA.

STATISTICAL REPORT.

Malta. In addition to changes in the composition of the force stationed in the Command, due to the replacement of invalids, and time-expired men, by drafts of fresh troops, one regiment—the 28th Foot—left on the 17th of December for service in the China Command, and was replaced by the 98th Foot, which arrived from the West Indies on the 13th of December.

The average annual strength of the force during the year (exclusive of the Royal Malta Fencible Artillery) was 4,506 non-commissioned officers and men; the admissions into hospital were 4,083, the deaths, including those of 11 invalids at Netley, were 47, being in the proportions of 906·1, and of 10·43 per 1,000 of the strength respectively; both proportions are higher than those of the preceding year, that of admissions by 9·2, that of deaths by 2·50 per 1,000 men.

Certain of the details relating to the sickness of each corps serving in the Command during the year, are given in the following Table:—

Malta.

Corps.	Completed year of service in Command.	Average Annual Strength.	Admissions into Hospital.	Died.			Invalids sent Home.	Average Daily Sick.	Rate per 1,000 of Strength.				Average Sick time to each Soldier.	Average duration of cases of Sickness.
				At Malta.	Of Invalids.	Total.			Admissions.	Deaths.	Invaliding.	Daily Sick.		
12th Brigade, Royal Artillery	2	995	1,042	16	1	17	40	56·14	1047·2	17·08	40·20	56·42	Days. 20·59	Days. 19·67
Royal Engineers	..	183	191	..	1	1	5	8·34	1043·1	5·49	27·32	45·82	16·63	15·94
28th Foot	3	635	508	4	4	8	36	25·00	800·0	12·60	56·69	39·37	14·36	17·96
42nd ,, ...	1	663	634	3	1	4	25	25·72	956·2	6·04	37·71	38·79	14·81	14·81
71st ,, ...	2	660	651	3	1	4	17	26·66	986·3	6·06	25·76	40·39	14·74	14·94
74th ,, ...	3	642	444	3	1	4	15	26·91	691·5	6·23	23·36	41·92	15·30	22·12
98th ,, ...	..	39	43	..	..	..	..	1·00	1102·6	..	..	25·64	9·36	8·49
101st ,, ...	1	618	530	6	..	6	11	22·40	857·6	9·71	17·80	36·25	13·23	15·43
Army Service Corps	..	10	6	1	..	1	..	·19	563·4	42·25	42·25	19·15	6·99	12·41
Army Hospital Corps ..	..	55	29	..	2	2	3	1·17						
Garrison Staff, &c.	..	6	5	..	..	..	..	..						

Malta.

The health of the Royal Artillery was the least favourable of that of any corps in the Command having a considerable strength, its admission, death, and daily sick rates are the highest, its invaliding rate is the second highest, and the average length of time each case of sickness remained under treatment was longer in the Royal Artillery than in any other corps, excepting one. The admissions in the Royal Artillery for dyspepsia are comparatively numerous, as also are those resulting immediately or remotely from accidents; the admissions for fevers are not in so high a rate as that of the 28th Regiment for the same diseases. The mortality in the Royal Artillery was raised by the occurrence of three accidental deaths. It will be noticed that the results of sickness in the 42nd, 71st, and 74th Regiments, are in close accordance; their death rates are almost identical, their daily sick rates are nearly the same, their invaliding rates do not differ importantly.

The sickness and mortality in each class and order of diseases is shown in the following Table :—

Orders.	Diseases.	1875.—Average Strength, 4,506.						1869–74.	
		Admitted into Hospital.	Deaths.			Annual ratio per 1,000 of Strength.		Annual ratio per 1,000 of Strength.	
			In Malta.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile	692	11	..	11	153·5	2·44	186·3	2·51
2	Constitutional	513	8	6	14	113·8	3·11	79·4	1·57
	II. *Local Diseases.*								
	Diseases of the—								
1	Nervous System ..	43	..	1	1	9·5	·22	10·6	·52
2	Eye	146	..	..	..	32·4	..	28·5	..
3	Ear	40	..	..	..	8·9	..	3·7	..
4	Nose	2	..	..	..	·4	..	·7	..
5	Circulatory System ..	80	8	2	10	17·8	2·22	10·4	1·36
6	Absorbent ,, ..	28	..	..	..	6·2	..	4·6	..
7	Ductless Glands ..	..	..	..	..	..	..		
8	Respiratory System ..	251	4	2	6	55·7	1·33	41·3	·90
9	Digestive ,, ..	847	..	..	..	188·0	..	136·9	1·01
10	Urinary ,, ..	232	..	..	..	51·5	..	39·1	·17
11	Generative ,, ..	41	..	..	..	9·1	..	13·2	..
12	Organs of Locomotion..	30	..	..	..	6·7	..	5·1	·07
13	Cellular Tissue.. ..	159	..	..	..	35·3	..	27·3	·11
14	Cutaneous System ..	345	..	..	..	76·6	..	62·6	..
	III. *Conditions, &c.*								
	Debility..	76	..	..	..	16·9	..	9·5	..
	IV. *Poisons* ..	14	1	..	1	3·1	·22	12·7	·28
	V. *Injuries.*								
2	Accidental	535	4	..	4	118·7	·89	97·5	·59
3	Homicidal	..	..	..	..	..	..	·7	·04
4	Self-inflicted	2	..	..	..	·4	..		·35
5	Judicial..	..	..	..	..	..	..		..
	VI. *Surgical Operations*	..	..	..	..	..	..	·2	·07
	No appreciable disease..	7	..	..	..	1·6	..	1·3	..
	Total	4,083	36	11	47	906·1	10·43	771·6	9·55
	Average of 10 Years, 1865–74	..	..	..	..	828·4	14·24	..	..

General Diseases.—The prevalence of diseases in this class was a little less than in the preceding year; in those of the *febrile group* there is a decrease, amounting to 63·9 per 1,000 men, whilst there is an increase of 32·4 per 1,000 in diseases of the *constitutional group;* the rate of mortality in the whole class is nearly double that of 1874, the increase occurs in both groups, but is greatest in that of constitutional diseases.

The admissions and deaths from the principal diseases in the class, are shown in the following Table:—

General Diseases.	1875.		Annual Ratio per 1000 of Strength.			
			1875.		1869–74.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile—						
Eruptive Fevers	1	..	·2	..	3·5	·42
Continued ,, ...	634	11	140·7	2·44	170·9	1·88
Paroxysmal ,, ...	36	..	8·0	..	7·4	·17
Influenza	1	..	·2	..	1·9	..
Erysipelas	18	..	4·0	..	1·8	..
Other diseases of this group	2	..	·4	..	·8	·04
Total of Febrile Group.. ..	692	11	153·5	2·44	186·3	2·51
Constitutional—						
Rheumatism	279	..	61·9	..	49·9	..
Syphilis	176	..	39·0	..	18·3	..
Scrofula, Phthisis, &c.	52	11	11·5	2·44	9·4	1·39
Scurvy and Purpura	..	..	..	..	·3	·04
Anæmia	3	..	·7	..	1·0	..
Other diseases of this group	3	3	·7	·67	·4	·14
Total of Constitutional Group..	513	14	113·8	3·11	79·3	1·57

Eruptive Fevers.—The admission in this group was that of a man of the Royal Artillery for small-pox.

Continued Fevers.—The prevalence of fevers of this nature was materially less than in the preceding year, but the mortality due to them was greater. *Enteric fever*, caused 25 admissions and 11 deaths; admissions from this disease are returned by every corps which served in the Command throughout the year, except the Royal Engineers; the greatest relative prevalence was in the 71st and in the 101st Regiments; in the first-named, a majority of the men were attacked when residing in Lower St. Elmo Barracks, one attack is stated to have originated at Ricasoli, and two at Pembroke Camp; the 101st was quartered at Fort Verdala, Lower St. Elmo, and a Company of the Regiment at Zabbar Gate, but it is not noted from what barracks the enteric fever cases were received. Admissions for enteric fever occurred throughout the year, but the greatest prevalence of the disease was in autumn. The ages and periods of residence in the Command of those attacked are not given, but from a consideration of the ages in the fatal cases, and of the fact that the disease prevailed disproportionately in two of the most recently-arrived regiments, it may be inferred that in Malta—as elsewhere—enteric fever chiefly attacked young men, newly arrived.

Simple Continued Fever.—The admissions for this disease were 205, the greatest comparative prevalence was in the 42nd, and in the 101st Regiments, the least in the 71st Regiment. The Principal Medical Officer remarks, that much of the "fever" which prevails in the hot season is consequent on the enforced confinement of the men in their barrack-rooms, from sunrise to

Malta.

sunset, and he is of opinion that a more suitable headdress than that now worn by the men, would obviate the necessity for the continuous and lengthened occupation of their quarters, during the day, in the hot weather.

Febricula.—There were 404 admissions on account of this disease, which prevailed more during the second and third quarters of the year than in the others.

Paroxysmal Fevers.—Of the 36 admissions returned under this head, 4 were due to ague, and 32 to remittent fever, from which latter disease 10 admissions occurred in the 71st Regiment; respecting them the Medical Officer writes, "Remittent fever, 10 admissions; 2 were changed to enteric fever; the "remaining 8 were on an average 31 days under treatment, and were probably "all cases of enteric fever." Five admissions for remittent fever are returned by the 42nd Regiment, the Medical Officer states that they were relapses of West African fever, caused usually by chill, and that they were not severe.

Erysipelas.—The rate of prevalence of this disease is fractionally higher than that of the preceding year, more cases of it occurred in the Royal Artillery, the 28th, and 74th Regiments, than in the other corps, but no corps had complete exemption.

Rheumatism.—The rate of admissions for this disease is nearly one-sixth higher than that of 1874; respecting one of the presumed causes of rheumatism, the Principal Medical Officer remarks, that the barrack-rooms are without fireplaces, and are cold, damp, and draughty in winter.

Syphilis.—The rate of admissions for this disease is more than twice as high as the corresponding rate of the preceding year.

Scrofula, Phthisis, &c.—The rates of admissions and of deaths exceed those of the preceding year, and also those of the average of six years. The causes conducing to the increased prevalence of the diseases in question are not specially adverted to in the reports; the admissions were fewest in the Royal Engineers, the 71st and 74th Regiments, in the remaining corps, the comparative prevalence was about the same.

Other Diseases.—Of illnesses grouped under this heading, two were admissions for cancer, and one was for pyæmia, consequent on an abscess in the hand.

LOCAL DISEASES.—*Diseases of the Nervous System*, were a little less prevalent than in 1874; the largest number of admissions from any disease in this order, was 18 for neuralgia.

Diseases of the Eye.—The admissions are in the same rate as in the preceding year.

Diseases of the Circulatory System.—A slight decrease in the rate of admissions is accompanied by an increase in that of mortality. Nearly two-thirds of the admissions were on account of palpitation, a disease which prevailed disproportionately in the Royal Artillery, and in the 42nd Regiment, and nearly in the same proportion in both corps; the Royal Engineers return no admissions for palpitation; the 28th, the 74th, and the 101st Regiments each return three admissions.

Diseases of the Respiratory System.—The rate of admissions is one-fifth higher than that of 1874, and the rate of deaths is also higher. The greatest comparative prevalence of diseases in this order was in the 42nd Regiment, and in the Royal Artillery, the least was in the 101st Regiment.

Diseases of the Digestive System.—The prevalence of diseases of this order was a little less than in 1874; no attack was fatal.

Diseases of the Urinary System.—The rate of admissions exceeds that of the preceding year by 17·2 per 1,000 men.

Diseases of the Cutaneous System.—The rate of admissions exceeds that of the preceding year by 16·5 per 1,000; the prevalence of diseases in this order was greatest in the 42nd, 71st, and 101st Regiments.

INJURIES.—*Accidental.*—A slightly higher rate of admissions than that of 1874, is accompanied by a death rate exceeding that of the average of six years; the deaths in this order were due to injury of the brain (3), and to multiple injury (1).

ROYAL MALTA FENCIBLE ARTILLERY.

Malta.

The average annual strength of the non-commissioned officers and men of this corps was 324, the admissions into hospital were 251, the deaths were 3, giving an admission rate of 774·7, and a death rate of 9·27 per 1,000 of the strength; the first rate is almost the same, the last is 6·36 per 1,000 higher than the corresponding one of last year.

The following Table shows the admissions and deaths in the various classes and orders of diseases :—

Orders.	Average Strength	Royal Malta Fencible Artillery.						English Troops at Malta in 1875.	
		324		Annual Ratio per 1,000 of strength.				Annual Ratio per 1,000 of strength.	
				1875.		1869–74.			
	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group	20	..	61·7	..	60·5	1·65	153·5	2·44
2	Constitutional Group ..	32	..	98·7	..	81·3	·99	113·8	3·11
	II. *Local Diseases.* Diseases of the—								
1	Nervous System	3	..	9·3	..	11·6	·99	9·5	·22
2	Eye	43	..	132·7	..	127·6	..	32·4	..
3	Ear	..	..	..	..	3·0	..	8·9	..
4	Nose	..	..	..	..	·7	..	·4	..
5	Circulatory System	6	1	18·5	3·09	3·6	·33	17·8	2·22
6	Absorbent ,, ...	3	..	9·3	..	5·0	..	6·2	..
8	Respiratory System.. ..	11	..	34·0	..	57·8	..	55·7	1·33
9	Digestive ,, ...	30	1	92·6	3·09	172·5	1·32	188·0	..
10	Urinary ,, ...	21	..	64·8	..	58·7	..	51·5	..
11	Generative ,, ...	4	..	12·3	..	8·6	·33	9·1	..
12	Organs of Locomotion ..	1	..	3·1	..	2·6	..	6·7	..
13	Cellular Tissue	4	..	12·3	..	37·5	..	35·3	..
14	Cutaneous System	38	..	117·3	..	104·4	..	76·6	..
	III. *Conditions.*								
	Debility	..	..	..	..	2·0	..	16·9	..
	IV. *Poisons.*	..	..	..	..	1·0	..	3·1	·22
	V. *Injuries.*								
2	Accidental	33	..	101·9	..	47·9	..	118·7	·89
3	Homicidal	2	1	6·2	3·09	..	..	..	..
4	Self-inflicted	..	..	..	..	·3	..	·4	..
	No Appreciable Disease ..	..	..	..	..	·7	..	1·6	..
	Total	251	3	774·7	9·27	787·3	5·61	906·1	10·43
	Average of 10 years, 1865–74	..	..	812·8	8·34	..	..	..	..

GENERAL DISEASES, were more prevalent than in 1874, the excess being in the *febrile group;* the rate of prevalence in the *constitutional*, is the same in both years.

LOCAL DISEASES.—*Diseases of the Eye.*—The rate of admissions is lower than that of the preceding year, but it will be noticed that the proportional prevalence of diseases of this kind is four-fold greater than that of the English

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corps in the Command; the Medical Officer states that the greater part of the admissions were those of men who suffered from conjunctivitis, as a result of granular eyelids.

Diseases of the Circulatory System, are in a higher rate of prevalence than that of the preceding year; one man died from aneurism of the aorta.

Diseases of the Digestive System.—The rate of admissions is 25 per 1,000 lower than that of the preceding year. The fatal case in this order is returned under the head of jaundice; amongst the symptoms of the illness was epistaxis; on the examination of the body after death the liver was found to be much enlarged, and the mucous coat of the stomach was congested, soft, and easily separable from the muscular coat.

Diseases of the Urinary System.—The rate of admissions is more than double that of the preceding year.

Injuries.—*Homicidal.*—Of the two admissions in this order, one resulting from a stab with a knife was fatal; the case is interesting in connection with the conditions found after death. "Gunner ——, 24 years of age, 6 years' service, " a man of strong constitution, good habits, who had never suffered from any " serious disease, and had never been subject to dyspnœa, was stabbed * * * * " between the 10th and 11th ribs of the left side." On admission he did not present any symptom of wounded lung. After death, the appearances noted were: "right lung normal, left lung reduced to half its volume, its texture " very thick; the lower half of the left pleural cavity was occupied by a large " portion of the stomach which protruded into it through a *congenital tendinous* " *opening* in the left side of the diaphragm." The left lung was unwounded; the knife with which the man was stabbed, had entered the left pleural cavity, perforated the diaphragm, and had made a deep wound in the spleen. Blood and serum were effused into the abdominal cavity.

Invalids.—23, or in the rate of 70·99 per 1,000, were discharged the service as invalids. The average number constantly sick was 9·66, being in the rate of 29·81 per 1,000 men.

Officers.

The annual average strength of the officers serving in the Malta Command, in 1875, was 226, of whom 130 were placed on the sick report, 2 died, and 13 were invalided to England; the rates per 1,000 of the strength represented by these numbers are, for cases of sickness, 575·2; for deaths, 8·85; and for invaliding 57·52.

Of the cases of sickness, 36 were due to diseases of the febrile order, they included 2 for *enteric fever*, and 16 for *simple continued fever;* one attack of the first-named disease proved fatal; the other death was that of an officer invalided on account of ulcer of the tongue.

Women.

The average annual strength of the wives of soldiers was 422; the cases of sickness amongst them were 263; the deaths were 2; the rates per 1,000 of the strength represented by these numbers are—for cases of sickness 623·2, and for deaths 4·74.

Two women suffered from *enteric fever*, and one from *cerebro-spinal fever;* one of the deaths was due to the last-named disease, the other to consumption.

Children.

The average annual strength of the children of the non-commissioned officers and men in the Command, was 824 amongst whom there were 611 cases of sickness and 44 deaths, being in the proportions of 741·5, and of 53·40 per 1,000 of the strength respectively. For comparison, it may be useful to note that the death rate of persons between the ages of 0 and 15 in England is 27·2 per 1,000.

Of the cases of sickness, 96 were due to the diseases of the *febrile group;* eruptive fevers in 15 instances; only one case of *enteric fever*, is returned; o *simple continued fever*, and *febricula*, together, there were 35 cases; of *remittent fever*, 14,—one attack of the latter disease was fatal. 27 cases of *diphtheria* are

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returned, of which 5 were fatal (one death is also returned as due to sore throat). There were 9 cases of diseases in the *constitutional* group; one of tubercular meningitis, and one of anæmia, were fatal.

There were 10 cases of diseases of the *nervous system*; one of meningitis, and 3 of convulsions, were fatal.

Diseases of the Eye, gave relatively numerous cases, those from conjunctivitis in various degrees of severity, were 165 in number, being in the proportion of 200 per 1,000 of the strength.

Diseases of the Digestive System. In this order 97 cases of illness from diarrhœa are returned, 12 of them (being in the proportion of 14·56 per 1,000 of the strength) were fatal; the great mortality from this particular disease may have relation to the fact of the prevalence of enteric fever in the Command.

Teething, is returned as the cause of 3, and *general debility*, as that of 7 deaths.

SANITARY REPORT.

Surgeon-General Fraser, C.B., reports:—

"The great fundamental sanitary defects in Valletta, and the three cities within the lines of fortification, are their unsatisfactory drainage, with the inadequate supply of water for cleansing or flushing purposes.

"An additional defect in the system is, that all the numerous outlets open into the various harbours and inlets, or narrow creeks, until the water has become polluted from the long accumulation and sediment, there being no tidal current to carry this out to sea. I have to state, however, that a main sewer-pipe is now being laid to receive the sewage of the three cities on the south side, with its outlet into deep sea water, at a point a considerable distance to the east of Fort Ricasoli, which, I understand, will be completed by October 1877. It is afterwards intended to join on a main sewer from Valletta and Floriana, to be executed at the joint expense of the Imperial and Local Governments. The harbours will thus be relieved of these nuisances, specially offensive during the still air and water of the summer months, and evils resulting from the present saturation of the subsoil, consequent on the porous nature of the stone of which these enormous drains are constructed, will be removed.

The general condition of the barracks is as good, upon the whole, as the construction of casemated structures—in some instances not originally (as Floriana) intended for occupation—will admit of. The introduction of fireplaces into all barrack rooms, with an allowance of fuel during the winter months, such as is granted to the guard rooms, would be a great benefit, contributing to the comfort and health of the inmates.

There are still some dilapidated wooden (Crimean) huts in the Floriana Notre Dame Ravelin, also in St. James's Ravelin and the adjacent Horn and Crown works, generally occupied either by married families or a company of a regiment. Such temporary structures should be replaced by proper barrack accommodation, similar to the good married quarters in both ravelins.

Space of men in barracks.—Very little alteration has been made in this important matter since the publication of the Report of the Sanitary Commission on Barracks and Hospitals in 1863. There is still some overcrowding for such a climate, especially in the hot months; the floor accommodation in some instances being as low as 40 superficial feet per bed, seldom rising to 60 or 70 square feet, lower than which it should never be in this climate, in so confined a garrison, it is therefore found to be absolutely necessary to encamp a portion of the troops at night during the hot months, as a sanitary measure conducive to comfort and health.

The Ventilation of all the barracks has been very much improved by the insertion of inlets and outlets in the walls or roofs, the enlargement of windows or loopholes, affording increased light as well as ventilation. Gas has also been introduced into several barracks, and some of the married quarters. External as well as internal ventilation is very imperfect in some of the barracks, from their position and structural conformation.

Malta.

Drainage.—Reference has been already made to the very defective drainage of the towns into which that of the barracks necessarily falls, and also to the totally disproportionate amount of water to the excessive dimensions of the drains cut out of the porous sandstone rock. All the barracks are now provided with good remodelled water latrines and slate or earthenware urinals, flushed out and cleansed twice or thrice a-day by either fresh or salt water, pumped into cisterns for that purpose. They are connected with the town sewers by glazed earthenware pipes. The old Malta trough of soft porous stone is almost completely abolished.

Water Supply for the barracks, is either rain water collected into tanks, or conveyed into them by the two grand aqueducts from the hill springs. It is generally good and sufficient, though limited in supply. It is not continuously laid on by pressure, but pumped by fatigue parties into cisterns for cook-houses, ablution rooms, and latrines, &c. In some barracks it is passed through a filter before it is used. The barrack rooms and married quarters are also provided with dripstones for drinking water. I purpose recommending that all tanks should undergo careful periodical cleansing at the end of the dry season, and that the water of each tank should be filtered on a general system, both before it enters the tank, and before it is used for drinking; that in the event of the overflow pipe of any cistern used for drinking or cooking in a barrack, quarter, or hospital, communicating with sewage drains, it should be disconnected; and that all sinks or baths within houses, or hospitals, or barracks, should be similarly disconnected by air; and also that all water closets soil pipes should be ventilated below the syphon by a tube into the outer air, to a point above windows.

The Cookhouses are in good condition, and, in nearly all cases, provided with steel ovens, and boilers, though Warren's Cooking Apparatus is now in general use.

The *Ablution* and *Bath* accommodation is very good in all the barracks, being provided either with fixed or moveable basins, and baths with sufficient water laid on, by pumping. At Pembroke Camp, however, salt water is laid on, and men have to carry water for ablution from the tank pump.

All the barracks are now provided either with new or remodelled married quarters, having good washhouses, with fixed or moveable tubs, and water generally laid on from cisterns and pumps; also water latrines and ablution rooms. The "Camerata" married quarters, near the general hospital, is occupied by the families of the Royal Artillery, the Regiment in Lower St. Elmo Barracks, and the Malta Fencibles. Each house has a drained soil pipe, washed out by hand. There is a general laundry and washhouse sufficiently supplied with water in the usual way.

There is now an admirable *Gymnasium*, both in the Cottonera and Valletta sides, with very satisfactory results, as to the general physical development especially of young soldiers. Accidents are rare.

All the barracks are provided with reading and recreation rooms, schoolrooms, generally well lighted and ventilated.

The new *Military Prison* appears to be in good sanitary condition, excepting the dry earth latrines, which are to be altered in compliance with the recommendations of a late Commission of Inquiry, called for by the numerous cases of enteric fever admitted into hospital.

The *Cottonera Hospital* is admirable in all its arrangements, and wants only separate accommodation for infectious diseases, and also a hot air disinfecting room to make it complete.

Forrest Hospital is on a good site, and with some improvements would be made a good hospital.

Valletta Hospital has undergone certain improvements from time to time. It presents ample accommodation, but it appears to me that whatever is done, it will never be other than a bad hospital. It is the oldest building in Valletta, having been the Hospitium of the Knights. From its defective construction, its complicated and irregular arrangements, its bad drainage—one main town sewer passing under it, and two others at either end; from its low site, filthy neighbourhood, defective external ventilation, obstructed on three sides by higher buildings, being only opened on the south to the sea, where the outlets of the above drains eject their contents, I am

Malta.

decidedly of opinion that it is absolutely necessary to erect a new hospital, on some other site, for the sick of the Valletta and Floriana garrisons, similar to that on the Cottonera side."

Attached to Surgeon-General Fraser's Report is a list of the leading sanitary improvements effected in the course of the year, furnished by the Commanding Royal Engineer.

Section II.

On the extent of Invaliding among the Troops serving in the Mediterranean.

Mediterranean

The number of invalids (non-commissioned officers and men) sent home from Gibraltar was 105, and from Malta 152, being in the rate of 22·50 of those of the first, and of 33·73 per 1,000 men of those of the last Command. During the year 58 invalids from Gibraltar, being 12·29 per 1 000 of the strength of the Command, and 85 invalids from Malta, being 18·86 per 1,000 of the strength, were finally discharged the service at Netley.

The classes and orders of the diseases of the invalids, are shown in the following Table :—

Orders.	Diseases.	Invalids sent home from			Invalids discharged at Netley from		
		Gibraltar.	Malta.	Total.	Gibraltar.	Malta.	Total.
	I. *General Diseases.*						
1	Febrile Group	3	3	6	..	..	..
2	Constitutional „	43	48	91	23	35	58
	II. *Local Diseases.*						
	Diseases of the—						
1	Nervous System	9	11	20	4	2	6
2	Eye	2	8	10	1	2	3
3	Ear	..	2	2	..	2	2
5	Circulatory System	15	22	37	15	20	35
7	Absorbent „	..	1	1	..	..	..
8	Respiratory „	3	17	20	2	4	6
9	Digestive „	4	11	15	1	9	10
10	Urinary „	4	5	9	2	1	3
11	Generative „	1	..	1	..	..	..
12	Organs of Locomotion	3	2	5	1	2	3
13	Cellular Tissue	..	..	..	..	2	2
14	Cutaneous System	1	..	1	1	..	1
	III. *Conditions, &c.*						
	Debility	14	21	35	5	6	11
	V. *Injuries.*						
	Accidental..	3	1	4	3	..	3
	Total	105	152	257	58	85	143
	Ratio per 1,000 of Mean Strength 1875 ..	22·25	33·73	28·04	12·29	18·86	15·60
	Ratio per 1,000 of Mean Strength 1865-74	29·49	24·92	27·10	18·76	16·57	17·61

The proportion of invalids sent home from Gibraltar is a little lower than in the preceding year ; whilst that of invalids, finally discharged the service, is nearly the same in both years. The proportion of invalids sent from Malta exceeds that of the preceding year by 4·94 per 1,000 of the strength, but the proportion of invalids from the Command finally discharged the service, is lower by 3·2 per 1,000.

Section III.

Mean Daily Sick.

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The average number of non-commissioned officers and men constantly sick in Gibraltar was 181, and in Malta 194·32, being in the annual rates of 38·36, and of 43·12 per 1,000 of the strength respectively; both are higher than the corresponding rates of the preceding year, the first considerably so.

The usual information calculated from these numbers is given in the following Table:

		Gibraltar.	Malta, exclusive of Royal Malta Fencibles.
Average Strength in 1875 ..		4,719	4,506
Average constantly sick		181	194
Ratio per 1,000 constantly sick	1875 ..	38·36	42·21
	1865–74..	32·61	41·66
		days	days
Average sick time to each Soldier	1875 ..	14·00	15·42
	1865–74..	11·90	15·20
Average duration of the cases	1875 ..	22·55	17·34
	1865–74..	18·13	18·35

In all the three particulars, in Gibraltar, the results are considerably less favourable than in the preceding year, more men were constantly sick, the sick time to each soldier was greater, and the average duration of each case of sickness was longer.

Section IV.

Influence of the Age on Mortality.

The following Table shows the relation of age to mortality in the Troops serving in the Mediterranean Command:—

			Under 20.	20 and under 25.	25 and under 30.	30 and under 35.	35 and under 40.	40 and upwards.
Mediterranean Command.	1875	Average Strength ..	1,018	3,382	2,271	1,101	1,038	239
		Died	2	22	15	13	12	4
		Ratio per 1,000 of Strength ..	1·97	6·51	6·61	11·80	11·56	16·74
	1865–74	Do. Do. ..	3·04	6·28	14·28	14·38	22·22	31·58

IV.—ON THE HEALTH OF THE TROOPS SERVING IN THE DOMINION OF CANADA.

Section I.

Sickness and Mortality.

STATISTICAL REPORT.

Dominion of Canada.

The troops in this Command were stationed at Halifax: no change took place in the composition of the force, other than that due to the substitution of one detachment of Royal Engineers from Bermuda, by another, and to the replacement of time-expired men, invalids, &c., by drafts from home, amounting in the aggregate to 323 non-commissioned officers and men. The average annual strength of the troops was 1,684; the admissions into hospital were 1,109; the deaths (including that of an invalid) were 15; the rates given by these numbers are, for admissions, 658·6, and for deaths, 8·90 per 100 of the mean annual strength; both exceed the corresponding rates of the preceding year, that of deaths, by 2·90 per 1000.

Certain particulars of the results of sickness in each of the Corps serving in the Command, are contrasted in the following Table:—

Corps.	Completed years of Service in the Command.	Annual Average Strength.	Admitted into Hospital.	Died.	Invalided.	Average Daily Sick.	Rate per 1,000 of Strength. Admitted.	Rate per 1,000 of Strength. Died.	Rate per 1,000 of Strength. Invalided.	Rate per 1,000 of Strength. Constantly Sick.	Average Sick time to each man.	Average duration of cases of Sickness.
											Days.	Days.
3rd Brigade Royal Artillery ...	2	319	203	4	11	12·61	636·4	12·54	34·48	39·53	14·42	22·72
Royal Engineers...	...	97	53	1	1	2·46	546·4	10·31	10·31	25·36	9·26	16·94
1st Battalion 60th Foot	8	620	347	4	12	14·87	559·7	6·45	19·36	23·98	8·75	15·64
87th Foot	3	616	499	6	12	23·96	810·1	9·74	19·48	38·90	14·20	17·53
Army Service Corps	...	11	2	.	...	...	300·0	...	...	...	...	...
Army Hospital Corps	...	17	6									
Garrison Staff	...	2	1									

As was also the case in the preceding year, the results of sickness of the 87th Regiment compare unfavourably with those of the 1st Battalion 60th; the diseases to which the excess of sickness in the first-named Corps was chiefly due, were influenza, bronchitis, and those resulting from injuries.

The following Table shows the admissions and deaths from the different classes and orders of diseases:—

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Orders.	Diseases.	Strength, 1,684.				1875.		1869–74.	
			Deaths.			Annual Ratio per 1,000.		Annual Ratio per 1,000.	
		Admissions.	In Dominion of Canada.	Of Invalids.	Total.	Admissions.	Deaths.	Admissions.	Deaths.
	I. *General Diseases.*								
1	Febrile Group ..	85	..	..	..	50·5	..	37·9	·57
2	Constitutional „ ..	133	..	..	..	79·0	..	110·4	1·38
	II. *Local Diseases.* Diseases of the—								
1	Nervous system	14	1	..	1	8·3	·59	9·6	·76
2	Eye	32	..	..	..	19·0	..	14·0	..
3	Ear	8	..	..	..	4·7	..	2·9	..
4	Nose	2	..	..	..	1·2	..	·5	..
5	Circulatory system ..	39	2	..	2	23·2	1·19	7·3	1·38
6	Absorbent „ ..	26	..	..	..	15·4	..	14·4	..
7	Ductless Glands	..	..	..	..	..	..	·1	..
8	Respiratory system ..	182	5	1	6	108·1	3·56	71·5	1·62
9	Digestive „ ..	193	2	..	2	114·6	1·19	79·3	·33
10	Urinary „ ..	54	..	..	..	32·1	..	75·1	·29
11	Generative „ ..	7	..	..	..	4·2	..	10·2	..
12	Organs of Locomotion ..	10	..	..	..	5·9	..	4·2	·09
13	Cellular Tissue	34	..	..	..	20·2	..	20·1	·05
14	Cutaneous system ..	71	..	..	..	42·2	..	51·6	·05
	III. *Conditions, &c.*								
	Debility	1	..	..	..	·6	..	4·4	..
	IV. *Poisons* ..	11	2	..	2	6·5	1·19	8·8	·33
	V. *Injuries.*								
2	Accidental	206	1	..	1	122·3	·59	86·6	·81
3	Homicidal	..	..	..	..	..	..	·1	·09
4	Self-inflicted	..	1	..	1	..	·59	·2	·48
	VI. *Surgical Operations*	1	..	..	..	·6	..	·3	·05
	No appreciable disease ..	..	..	..	..	..	..	·7	..
	Total	1,109	14	1	15	658·6	8·90	610·2	8·28
	Average of 10 years, 1865–74.. ..	..	..	..	..	642·3	9·19	..	..

General Diseases.—The rate of admissions slightly exceeds that of 1874 the increase being in the *febrile* group.

The following Table shows the admissions and deaths from the principal diseases in this class :—

Dominion of Canada.

Diseases.	Admitted.	Died.	Ratio per 1,000 of Strength.			
			1875.		1869–74.	
			Admitted.	Died.	Admitted.	Died.
Febrile—						
Eruptive Fevers	..	..	..	..	2·2	·05
Continued "	23	..	13·7	..	17·5	·38
Paroxysmal "	1	..	·6	..	4·9	..
Cholera	..	..	..	..	·1	..
Influenza	50	..	29·7	..	7·9	..
Erysipelas	10	..	5·9	..	4·3	·09
Other Diseases of this group	1	..	·6	..	1·0	·05
Total of Febrile Group	85	..	50·5	..	37·9	·57
Constitutional—						
Rheumatism	86	..	51·1	..	35·8	..
Syphilis	25	..	14·8	..	67·0	·05
Scrofula, Phthisis, &c.	16	..	9·5	..	5·5	1·19
Scurvy and Purpura	..	..	..	..	·6	..
Anæmia	2	..	1·2	..	·4	..
Other Diseases of this group	4	..	2·4	..	1·1	·14
Total of Constitutional Group ..	133	..	79·0	..	110·4	1·38

Eruptive Fevers.—There was no admission from any fever of this nature during the year.

Continued Fevers.—The rate of admissions for continued fevers is lower than that of the preceding year by 4·9 per 1,000.

Influenza.—The rate of admissions for this disease exceeds that of the preceding year by 14·7 per 1,000 men, a result which to a small extent, may have relation to the decreased number of admissions for continued fevers adverted to above, but was chiefly due to the more severe cold experienced in the winter of 1875.

Erysipelas.—The admissions were more numerous than in the preceding year; half of the whole number were those of men of the 87th Regiment.

Rheumatism.—The rate of admissions exceeds the corresponding one of 1874 by 12·7 per 1,000 men.

Syphilis.—The prevalence of this disease was less than in the preceding year, in the proportion of 23· per 1,000 men.

Scrofula, Phthisis, &c.—The admissions are in a fourfold greater rate than in 1874. More admissions on account of these diseases occurred in the 87th than in any other Corps. No death was caused by a disease of this group.

LOCAL DISEASES.—*Diseases of the Nervous System.*—More than half of the admissions in this order were for neuralgia. The death was proximately due to encephalitis, resulting from a nodular tumour apparently of syphilitic origin; it excited inflammation and suppuration in the anterior lobe of the brain.

Diseases of the Eye.—The rate of prevalence was the same as that of last year, there is no material difference in the proportional prevalence of conjunctivitis in the two Infantry Regiments which composed the greatest part of the force.

Diseases of the Circulatory System.—The rate of admissions exceeds that of the preceding year by 8·8. Of the 39 admissions for diseases in this order, 31 were on account of palpitation, the proportional prevalence of which was greatest in the Royal Artillery, and in the 87th Regiment.

Diseases of the Respiratory System.—The rate of admissions for diseases of this order, exceeds that of the preceding year by 27· per 1,000 men, and the rate of deaths is 2·96 per 1,000 higher. The Principal Medical Officer attributes the greater prevalence of affections of the respiratory system during the year, to the unusual cold experienced in winter; one of the deaths returned in this order, though proximately due to congestion of the lungs, was a result of intemperance, and in other fatal cases, though bronchitis, or pneumonia, might be the immediate cause of death, cardiac disease was also present.

Diseases of the Digestive System.—The admissions for diseases in this order, were more numerous than in 1874, tonsillitis being the one most in excess. Both of the deaths were from diseases of unusual occurrence in this Command, one being from dysentery, and the other from disease of the liver, going on to suppurative inflammation, the abscess resulting discharged through the lung. The subjects of these fatal illnesses were both young men, and it does not appear that their previous service had been in tropical countries.

Poisons.—The rate of admissions for diseases in this order (which were all due to intemperance) is double that of the preceding year, and with this the rate of mortality is proportionately increased.

Injuries. —*Accidental.* The proportion of admissions for accidental injuries exceeds that of the preceding year by 15·4 per 1,000 men: the death in this order was by gunshot. *Self-Inflicted.*—The death in this order was that of a man of the Royal Engineers, who poisoned himself with cyanide of potassium.

Officers.

In an average annual strength of 88 officers, there were 44 cases of illness, and 2 deaths. being in the annual rates of 500· and of 22·61 per 1,000 of the strength respectively. One of the deaths was due to epilepsy, and the other to valve disease of the heart.

Women.

In an average annual strength of 202 women, there were 67 cases of illness, and 4 deaths, being in the annual rates of 331·6 and 19·80 per 1,000 of the strength respectively. Of the deaths, 2 were due to consumption, one to valve disease of the heart, and one to puerpural fever.

Children.

In an average annual strength of 410 children, there were 120 cases of illness, and 11 deaths, being in the annual rates of 292·7, and 26·83 per 1,000 of the strength respectively. The death rate of children in the Command was thus nearly the same as that (27·22 per 1,000) for those of similar ages in England. No death was due to an eruptive fever; four were caused by diarrhœa.

SANITARY REPORT.

Deputy Surgeon-General Lloyd reports—"The admissions to hospital have been considerably in excess of those of the preceding 12 months, the increase being chiefly due to the long-continued and unusual severity of the weather during the early months of the year.

Sanitary Improvements.—The following improvements have been effected during the year,—viz, the light and ventilation of some of the casemates in the citadel have been improved.

Married Quarters.—Additional quarters for two staff serjeants and sixteen married soldiers have been erected in the Pavilion Barracks.

New Fire Grates in Wellington Barracks.—The old pattern grates in Wellington Barracks so much complained of last year, have been removed, and new ones, on an improved principle, have been substituted.

Sanitary Defects.—As regards the principal sanitary defects, and the most prominent requirements, I need not again enumerate them; they are the same as detailed in my reports for the previous four years.

Dominion of Canada.

Clothing and Diet—No change has been made in the dress during the year. On the subject of diet, two of the Medical Officers of the garrison refer to the long interval from dinner to breakfast, and recommend a more substantial meal for supper, in which I fully concur. From several years experience of the climate of Canada, I am convinced that some addition to the meat ration is absolutely requisite in the dieting of the Troops."

Section II.

On the Extent of Invaliding.

Thirty-three invalids were sent to England, and 22 were finally discharged the Service (3 in Canada, and 19 at Netley) during the year; the proportion to the strength given by the first-named is 19·60 per 1,000, being a little lower than that of the preceding year.

The diseases which necessitated invaliding are shown in the following Table:—

Disabilities.	Invalids sent home from Canada.	Invalids Discharged the Service	
		In Canada.	At Netley.
Chronic Rheumatism	1	..	..
,, Gout	1	..	..
Secondary Syphilis	5	..	..
Phthisis Pulmonalis	6	..	7
Fibro Plastic Tumour	1	..	..
Epilepsy	1	..	..
Dementia	1	..	..
Conjunctivitis	1	..	1
Short Sight	..	..	1
Iritis	1	..	..
Valve Disease of Heart	2	..	5
Palpitation	3	..	..
Bronchitis	3	..	..
Asthma	2	..	2
Congestion of Lungs	1	..	..
Jaundice	..	1	..
Hernia	..	..	1
Gonorrhœa	1	..	..
General Debility	..	..	1
Fracture	1	1	..
Wounds	..	1	..
Sprain	1	..	..
Amputation of Foot	1	..	1
Total	33	3	19
Ratio per 1,000 of Mean strength.. 1875	19·60	1·78	11·28
Ratio per 1,000 of Mean strength.. 1865–74 ..	16·43	2·65	10·93

Section III.

Mean Daily Sick.

The average number constantly sick, during the year, was 54·17, being in the rate of 30·40 per 1,000 of the strength, a fractional increase on the rate of the preceding year.

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The usual information, calculated from these numbers, is given in the following Table :—

	1875.	1865–74.
Ratio per 1,000 of strength constantly sick ..	30·40	30·75
	days.	days.
Average sick time to each soldier	11·10	11·22
Average duration of the cases of sickness ..	16·85	17·47

The average sick time to each soldier is fractionally greater than in 1874 but the average duration of each case of sickness was fractionally less.

Section IV.

On the Influence of Age on the Mortality.

The following Table shows the death rates at the several ages, arranged in quinquennial periods :—

		Under 20 Years.	20 and under 25.	25 and under 30.	30 and under 35.	35 and under 40.	40 and upwards.
Ratio of deaths per 1,000 of the mean strength	1875	13·51	2·84	4·71	22·04	22·35	18·54
	1865–74	4·91	4·83	8·78	11·60	17·93	23·99

V.—ON THE HEALTH OF THE TROOPS SERVING IN BERMUDA.

Section I.

Sickness and Mortality.

STATISTICAL REPORT.

Bermuda.

The Corps serving in the Command in 1875 are shown in the following table; their annual average strength was 1,902; the admissions into hospital were 1,144; the deaths, including those of three invalids who died on the way home, were 21, giving a proportion for admissions, of 601·4, and for deaths, of 11·05 per 1,000 of the mean strength; both exceed the corresponding proportions of the preceding year.

Corps.	Year of completed Residence in the Command.	Average Annual Strength.	Admissions into Hospital.	Deaths.	Invalids sent Home.	Average daily Sick.	Ratio per 1,000.				Average Sick-time to each	Average Duration of Cases.
							Admissions.	Deaths.	Invalids sent Home.	Daily Sick.		
Royal Artillery, 7th Brig. 3rd and 4th Batteries...	3	200	92	3	8	5·67	460·0	15·00	40·0	28·3	Days. 10·35	Days. 22·50
Royal Engineers... ...	...	383	249	4	9	13·28	650·1	10·44	23·0	34·7	12·66	19·47
1st Battalion 20th Foot	2	637	365	7	18	26·04	573·0	10·99	28·3	40·9	14·92	26·04
" 53rd "	...	22	2	...	...	...	90·0	...	...	...	...	...
" 97th "	...	609	407	5	3	16·90	668·3	8·21	4·9	27·7	10·13	15·11
Army Service Corps ...	...	35	23	1	...	·92	568·6	39·22	...	20·0	7·30	12·84
Army Hospital Corps ...	...	16	6	1	...	·10						

The changes in the composition of the force serving in the Command, (other than those due to the replacement of time-expired men and invalids, by draft from home), were the arrival of the 97th Foot, on the 9th of January, from the West Indies, and the departure of the 53rd Foot, for England, on the 16th of the same month.

The following table shows the admissions and the deaths in the different classes and orders of diseases :—

Bermuda.

Orders.	Diseases.	1875. Average Strength, 1,902.						1869–74.	
			Deaths.			Annual ratio per 1,000 of Strength.		Annual ratio per 1,000 of Strength.	
		Admitted into Hospital.	At Bermuda.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group ..	103	2	..	2	54·2	1·05	80·7	2·57
2	Constitutional ,, ..	152	1	3	4	79·9	2·11	76·2	2·13
	II. *Local Diseases.*								
	Diseases of the—								
1	Nervous system ..	14	2	..	2	7·4	1·05	10·7	1·33
2	Eye	40	..	..	..	21·0	..	20·4	..
3	Ear	14	..	..	..	7·4	..	2·9	..
4	Nose	1	..	..	..	·5	..	2·7	..
5	Circulatory system ..	16	5	..	5	8·4	2·63	8·3	1·51
6	Absorbent ,, ..	34	..	..	..	17·9	..	10·9	..
8	Respiratory ,, ..	40	..	..	..	21·0	..	38·2	·53
9	Digestive ,, ..	283	2	..	2	148·8	1·05	166·6	·89
10	Urinary ,, ..	52	1	..	1	27·3	·53	29·4	·28
11	Generative ,, ..	15	..	..	..	7·9	..	8·9	..
12	Organs of Locomotion..	9	1	..	1	4·7	·53	2·9	..
13	Cellular Tissue.. ..	51	..	..	..	26·8	..	28·7	·08
14	Cutaneous system ..	88	..	..	..	46·3	..	69·5	·08
	III. *Debility* ..	6	..	..	..	3·2	..	8·3	..
	IV. *Poisons* ..	12	..	..	..	6·3	..	22·5	·71
	V. *Injuries.*								
2	Accidental..	212	2	..	2	111·4	1·05	112·6	1·42
3	Self-inflicted	1	2	..	2	·5	1·05	·6	·98
	VI. *Surgical Operations*..	..	..	..	..	..	..	·3	..
	No appreciable disease ..	1	..	..	..	·5	..		
	Total	1,144	18	3	21	601·4	11·05	701·3	12·51
	Average of 10 years 1865-74	..	..	..	..	716·5	15·04*	..	..

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* The great difference between this rate and that of the average of 10 years, given in the report of 1874, is due to the omission of the epidemic year of 1864.

General Diseases, were more prevalent than in the preceding year, and the increase was in both groups of the class; the mortality in the whole class, as well as in each group, was less than in 1874.

The admissions and deaths, from the principal diseases of this class, are shown in the following table :—

Bermuda.

Diseases.	Admitted.	Died.	Ratio per 1,000 of Mean Strength.			
			1875.		1869–74.	
			Admitted.	Died.	Admitted.	Died.
Febrile—						
Eruptive Fevers	1	..	·5	..	·1	..
Continued ,, ...	99	2	52·1	1·05	67·7	2·48
Paroxysmal ,, ...	2	..	1·1	..	1·4	..
Influenza	1	..	·5	..	10·7	..
Erysipelas	..	..	..	..	·4	..
Other diseases of this group.. ..	..	..	..	..	·4	·09
Total of Febrile Group	103	2	54·2	1·05	80·7	2·57
Constitutional—						
Rheumatism	66	..	34·7	..	35·7	..
Syphilis	68	..	35·7	..	30·1	·09
Scrofula, Phthisis, &c.	11	3	5·8	1·58	9·2	1·95
Anæmia	5	..	2·6	..	·5	..
Other Diseases of this Group ..	2	1	1·1	·53	·7	·09
Total of Constitutional Group ..	152	4	79·9	2·11	76·2	2·13

Eruptive Fevers.—The only admission in this group, was one for scarlet fever.

Continued Fevers.—In this group 99 admissions are returned—viz., for *enteric fever* 5, for *simple continued fever* 8, and for *febricular* 86. The admissions for enteric fever were those of men of the 1st Battalion 20th Foot (3), and of men of the Royal Engineers (2). It is not stated at what period of the year the attacks took place, but in the instance of the fatal case, death occurred in June; two men of the 20th, were attacked at St. George's, and one at Prospect Camp. Most of the admissions for simple continued fever, were those of men of the 97th Foot, but the fatal case was that of a man of the Royal Artillery. The Medical Officer notes that "the lower part of the ileum was much congested," but the glands were "healthy in appearance."

Paroxysmal Fevers.—The two admissions in this group of fevers were for *ague*, both occurred in men of the 97th, a regiment which served in the West Indies previously to its arrival in the Command.

Rheumatism.—The rate of admissions for this disease exceeded that of the preceding year.

Syphilis.—The rate of admissions for this disease exceeded that of 1874 by nearly 10· per 1,000.

Scrofula, Phthisis, &c.—The rate of admissions is only half that of 1874, and the mortality is lower in the same proportion; the greatest prevalence of the disease was in the 1st Battalion 20th Foot, in the opinion of the Medical Officer, its comparatively long residence in the Command contributed to this result.

Other Diseases.—One admission for *purpura*, is returned, that of a man of the Royal Engineers, who died from it on his passage home; no remarks respecting the illness occur in the report.

LOCAL DISEASES.—*Diseases of the Nervous System.*—The rate of admissions, and also that of deaths, is lower than the corresponding rate of 1874; all the admissions in this order excepting three, were on account of *neuralgia*.

Diseases of the Eye.—The rate of admissions is nearly twice that of the preceding year, this result is due to the greater prevalence of conjunctivitis, a

Bermuda.

disease of disproportionately frequent occurrence in the 1st Battalion 20th Foot.

Diseases of the Circulatory System.—Neither the rate of prevalence, nor that of mortality, is materially different from the rate of 1874; the admissions on account of palpitation were six in number, four of them being returned by the 1st Battalion 20th Regiment, and two by the Royal Engineers; of the deaths in this order, two were due to valve disease of the heart, and two to aneurism.

Diseases of the Respiratory System.—There is a large decrease in the admissions for diseases in this order on the rate of the preceding year, and no illness was fatal.

Diseases of the Digestive System.—The rate of admissions exceeds that of 1875 by 13 per 1,000; dyspepsia, and diarrhœa, were the diseases which caused the greater number of admissions in this order, the former being relatively most prevalent in the Royal Engineers, and in the Royal Artillery, and least so in the 1st Battalion 20th Foot. The latter disease was most prevalent in the 97th, the regiment newly arrived in the Command. One death from hepatitis took place, suppuration having followed on the inflammatory stage of the disease.

Poisons.—Compared with the preceding year, there is a decrease of 21· per 1,000 in the rate of admissions for diseases in this order. No attack was fatal.

Injuries.—*Accidental.*—The rate of admissions is nearly the same as that of 1874. One of the two deaths in this order was due to rupture of the diaphragm, caused by a fall into the ditch of one of the forts; the man lived 48 hours after the accident, suffering intense pain, and having uncontrollable vomiting, chiefly of blood; after death, a large rent was discovered in the diaphragm, through this the stomach and spleen had passed into the cavity of the chest, displacing the heart to the right side. The other accidental death was from drowning.

Self-inflicted.—Of the two deaths in this order, one was by gunshot, the other by drowning.

SANITARY REPORT.

Deputy Surgeon-General Grant reports that "the health of the troops has been very good, and there have been no important sanitary defects likely to originate or perpetuate disease in any of the stations in this command.

The barrack accomodation appears to have been ample, and the sanitary condition of the different barracks has been satisfactory, and with the exception of a foul tank attached to the barrack serjeant's quarters at Prospect, which was said to have originated a case of typhoid fever in the family, there has been no complaint in this respect from any of the medical officers."

The following sanitary services were executed during the past year:—

St. George's.—1. Additional tank for storage of water at the Hut barracks. 2. Ventilating the drain from latrines. 3. Altering overflow pipe from cisterns.

Prospect.—1. Providing a swimming bath for the troops. 2. Hospital wards—altering and re-hanging sashes to windows, so as to open outwards. 3. Hospital—additional rain-water tank.

Boaz.—1. Preparing a bathing place for the troops. 2. Additional tank for the storage of rain water.

Section II.

On the Extent of Invaliding.

Thirty-eight invalids were sent home from the Command, and twenty were discharged the service at Netley, during the year. The proportion of invalids sent home is 19·93 per 1,000, which is slightly less than that of the preceding year.

The following Table shows the classes and orders of the diseases to which the invaliding was due:—

Bermuda.

Class.	Order.	Diseases.	Invalids sent home.	Discharged the Service at Netley.
I.	2	Rheumatism	5	1
		Syphilis	2	..
		Phthisis	6	3
		Purpura	1	..
		Diseases of the—		
II.	1	Nervous System	5	1
	2	Eye	2	1
	5	Circulatory System	5	8
	8	Respiratory ,, ...	1	1
	9	Digestive ,, ...	2	..
	12	Organs of Locomotion	3	..
	13	Cellular Tissue	1	..
	14	Cutaneous System	1	..
III.	..	Debility	1	2
V.	2	Injuries	3	3
		Total	38	20
		Ratio per 1,000 of strength 1875 ..	19·93	10·52
		Ratio per 1,000 of strength 1865–74 ..	21·92	14·25

Section III.

Mean Daily Sick.

The average number of men in hospital throughout the year was 62·91.

The following Table exhibits certain particulars calculated from the number of constantly sick :—

	1875.	1865–74.
Ratio per 1,000 of strength constantly Sick ..	33·08	35·39
	days.	days.
Average Sick time to each Soldier	12·07	12·91
Average duration of each case of Disease	20·07	18·27

All the results shewn above are less favourable than those of the preceding year; the average sick-time to each soldier, and the average duration of each case of sickness, are both nearly two days in excess of the corresponding rates of 1874.

Section IV.

On the Influence of Age on the Mortality.

The following Table shews the rates of mortality at the several ages, arranged in quinquennial periods :—

		Under 20.	20 and under 25.	25 and under 30.	30 and under 35.	35 and under 40.	40 and upwards.
Ratio of deaths per 1,000 of mean strength	1875 ..	19·23	2·54	3·04	21·74	12·27	41·67
	1865–74	3·45	7·68	13·54	21·21	34·34	13·61

VI.—ON THE HEALTH OF THE TROOPS SERVING IN THE WEST INDIES.

Section I.

Sickness and Mortality

STATISTICAL REPORT.

I. White Troops.

West Indies Command.

The average annual strength of the troops in the Command was 1,131 ; the admissions into hospital amongst them were 953 ; the deaths, including those of 3 invalids on their way home, or after arrival in England were 10, being in the rates of 842·6, and of 8·84 per 1,000 of the strength respectively. Both rates are lower than the corresponding ones of the preceding year, that of admissions by nearly one quarter, that of deaths by nearly one half. If the results in the Windward and Leeward Islands, and in Jamaica, be taken separately, the admission rate of the first is 734· and the death rate is 5·98 per 1,000 of the average annual strength ; whilst the admission rate of the last is 835·5, and the death rate is 12·99 per 1,000 of the strength.

The corps which composed the force, and certain of the most important of their health statistics are shown in the following Table.

Corps.	Completed years of service in the Command.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Daily Sick.	Rate per 1,000 of Strength. Admitted.	Rate per 1,000 of Strength. Died.	Rate per 1,000 of Strength. Invalided.	Rate per 1,000 of Strength. Daily Sick.	Average sick time to each soldier.	Average duration of each case of sickness.	Stations.	
Royal Artillery—											days.	days.		Months.
5 Batt., 7th Brig. ...	2	105	98	2	9	3·88	933·3	19·09	85·71	36·95	13·49	14·49	Jamaica	12
6 ,, ,, ,, ...	2	110	152	...	4	7·94	1381·8	...	36·36	72·18	26·35	19·07	Barbados ...	12
35th Foot	...*	100	234	...	...	4·45	2340·0	...	...	...	...	...	Jamaica, Barbados, and Trinidad.	
98th ,, ...	2†	778	447	7	11	24·79	574·5	9·	14·14	31·86	11·63	20·24	Do. Do.	Do.
Rl. Engineers, Staff Serjts., and Army Service Corps ...	...	38	22	1	2	...	...	...	...	...	...	...		

* Arrived in the Command on the 18th November.
† Left the Command on 23rd November.

In the following Table the admissions and deaths in the different classes and orders of diseases are shown :—

West Indies Command.

Orders.	White Troops.	1875.						1869–74.	
	Diseases.	Strength, 1,131.				Ratio per 1,000.		Ratio per 1,000.	
		Admitted.	Died.			Admitted.	Died.	Admitted.	Died.
			In West Indies.	Of Invalids.	Total.				
	I. *General Diseases.*								
1	Febrile Group	107	..	..	..	94·6	..	207·8	5·62
2	Constitutional „	144	1	1	2	127·3	1·77	103·6	2·13
	II. *Local Diseases.* Diseases of the—								
1	Nervous System ..	17	..	..	..	15·0	..	11·1	1·00
2	Eye	9	..	..	..	8·0	..	12·0	..
3	Ear	4	..	..	..	3·5	..	9·5	..
4	Nose..	..	..	..	..	..	..	·5	..
5	Circulatory System .	12	1	..	1	10·6	·88	12·2	1·00
6	Absorbent „ ..	35	..	..	..	30·9	..	20·4	..
7	Ductless Glands ..	..	..	..	..	..	..	·2	..
8	Respiratory System .	48	..	1	1	42·4	·88	31·5	·12
9	Digestive „ ..	173	3	1	4	153·0	3·55	118·1	·25
10	Urinary „ ..	104	..	..	..	92·0	..	103·7	·12
11	Generative „ ..	12	..	..	..	10·6	..	14·0	..
12	Organs of Locomotion	12	..	..	..	10·6	..	4·5	..
13	Cellular Tissue ..	32	..	..	..	28·3	..	26·5	..
14	Cutaneous System ..	88	..	..	..	77·8	..	85·0	..
	III. *Conditions, &c.*								
	Debility	13	..	..	..	11·5	..	10·0	·12
	IV. *Poisons* ..	13	1	..	1	11·5	·88	22·1	·63
	V. *Injuries.*								
2	Accidental	130	1	..	1	115·0	·88	124·3	·75
4	Self-inflicted ..	..	..	..	..	..	..	·4	·25
	VI. *Surgical Operations..* ..	..	..	..	..	..	..	·2	..
	No appreciable disease	..	..	..	..	..	..	1·3	..
	Total.. ..	953	7	3	10	842·6	8·84	918·9	11·99
	Average of 10 years 1865–74	..	..	..	..	1044·9	17·50	..	..

General Diseases.—The rate of admissions is less than the half, and the rate of deaths is little more than one-fifth of the corresponding rate *febrile* preceding year ; nearly the whole of the reduced prevalence was in the of the group of diseases; the rate of prevalence of diseases of the *constitutional* group did not differ materially in the two years. The whole of the decrease in the rate of deaths occurs in that of diseases in the febrile group.

The admissions and deaths from the principal diseases in the class, are shown in the following Table :—

West Indies Command.

White Troops.	1875.				1869–74.	
General Diseases.	Strength 1,131		Ratio per 1,000.		Ratio per 1,000.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile—						
Eruptive Fevers..	1	..	·9	..	·8	..
Continued Fevers	74	..	65·4	..	133·7	2·50
Yellow Fever	..	..	..	..	4·8	1·87
Paroxysmal Fevers	27	..	23·9	..	64·1	1·25
Influenza	4	..	3·5	..	2·0	..
Erysipelas	1	..	·9	..	1·3	..
Other Diseases of this group	..	..	..	..	1·1	..
Total	107	..	94·6	..	207·8	5·62
Constitutional—						
Rheumatism	35	..	30·9	..	19·6	..
Syphilis	83	..	73·4	..	63·0	..
Scrofula, Phthisis, &c.	9	2	8·0	1·77	8·8	2·12
Scurvy and Purpura	..	..	..	..	·1	..
Anæmia	17	..	15·0	..	10·6	..
Other Diseases of this group	..	..	..	..	1·5	..
Total	144	2	127·3	1·77	103·6	2·12

Eruptive Fevers.—The admission under this head was due to measles.

Continued Fevers.—The rate of admissions for continued fevers is 157·6 per 1,000 of the strength, lower than the rate of the preceding year, and no illness from a fever of this nature proved fatal. No admission for *enteric fever*, occurred during the year ; the epidemic of that disease at Newcastle in Jamaica, which caused so large a relative amount of sickness in 1873, and in 1874, appears to have ended with the last-mentioned year.

Simple Continued Fever.—Only 19 admissions for this fever are returned. *Febricula*, of the 55 admissions a considerable number were caused by intemperance.

Paroxysmal Fevers.—The rate of admissions is less than one-third of that of the preceding year ; excepting 8 for remittent fever, all the admissions were for ague.

Syphilis.—The rate of prevalence, is a little higher than in the preceding year.

Scrofula, Phthisis, &c.—The rates of prevalence, and of deaths, differ only fractionally from the corresponding rates of the preceding year, and they are also in close accordance with the average rate of a period of 6 years.

LOCAL DISEASES.—Compared with the preceding year, there is a decrease in the rate of admissions in every order, except in *Diseases of the Absorbent System*, and in those of the *Organs of Locomotion.*

Diseases of the Digestive System.—A material reduction occurs in the rate of admissions on that of 1874, but it is accompanied by a higher death rate ; of the four deaths from diseases in this order, two were due to disease of the liver, one to dysentery, and one to typhlitis, which came on after the application of nitric acid to internal piles, but the man also suffered from dysentery.

CONDITIONS, &c.—*Debility.*—The rate of admissions is one-third lower than that of the preceding year, a result which is probably in correspondence with the decreased prevalence of fevers.

POISONS.—A higher rate of admissions, with a lower rate of deaths than in the preceding year, is observed in connection with this class of diseases ;

West Indies Command.

of the 13 admissions, 12 were due to delirium tremens, and 1 to alcohol taken in an immediately poisonous quantity.

INJURIES.—*Accidental.*—The rate of admissions is 40·9 per 1,000 men lower than the rate of 1874.

2.—BLACK TROOPS.

The Black Troops serving in the West Indies Command, consisted of one wing of the 1st West India Regiment, of the 2nd West India Regiment, and of a detachment of Military Labourers.

The stations occupied were Barbadoes, Demerara, Jamaica, Honduras, and Bahamas.

The average annual strength was 1,223; the admissions into hospital were 1,242; the deaths were 21; the rates given by these numbers are, for admissions 1015·5, and for deaths 17·17 per 1000 of the strength; both are lower than the corresponding rates of the preceding year, that of deaths by 5·20 per 1,000 of the strength.

The comparative prevalence of disease in the principal divisions of the Command is shown in the following Table:—

Stations.	Strength.	Admissions.	Deaths.	Ratio per 1,000 of Strength.	
				Admissions.	Deaths
Windward and Leeward Islands and Demerara	504	340	9	674·6	17·86
Jamaica	409	480	6	1173·6	14·67
Bahamas	128	179	3	1398·4	23·44
Honduras..	182	243	3	1335·2	16·50

The admissions and deaths in the different classes and orders of diseases are shown in the following Table:—

West Indies Command.

Orders.	Black Troops.	1875.				1869–74.	
	Diseases.	Strength 1,223.		Ratio per 1,000.		Ratio per 1,000.	
		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*						
1	Febrile Group	149	6	121·8	4·90	174·9	1·88
2	Constitutional ,, ...	340	8	278·0	6·54	240·7	8·59
	II. *Local Diseases.*						
	Diseases of the—						
1	Nervous System	16	1	13·1	·81	20·7	1·53
2	Eye	26	..	21·3	..	17·2	..
3	Ear	6	..	4·9	..	2·0	..
4	Nose	1	..	·9	..	1·1	..
5	Circulatory System	14	..	11·4	..	8·6	1·88
6	Absorbent ,, ...	30	..	24·5	..	22·7	...
8	Respiratory ,, ...	51	2	41·7	1·64	61·7	2·82
9	Digestive ,, ...	115	2	94·0	1·64	91·3	1·41
10	Urinary ,, ...	175	2	143·1	1·64	135·7	·71
11	Generative ,, ...	34	..	27·8	..	20·7	..
12	Organs of Locomotion	20	..	16·3	..	10·7	·47
13	Cellular Tissue	37	..	30·3	..	20·2	..
14	Cutaneous System	99	..	80·9	..	82·2	..
	III. *Conditions, &c.*						
	Debility	7	..	5·7	..	4·5	·12
	IV. *Poisons*	2	..	1·6	..	3·2	..
	V. *Injuries.*						
1	Battle	..	..	..	..	1·5	·24
2	Accidental	119	..	97·3	..	99·1	·47
4	Self Inflicted	..	..	..	..	·1	·71
	VI. *Surgical Operations.*	1	..	·9	..	1·2	..
	No appreciable disease	..	..	..	..	1·1	·12
	Total	1,242	21	1015·5	17·17	1021·1	20·95
	Average of 10 years, 1865-74..	..	..	1073·5	22·01	..	..

GENERAL DISEASES.—Compared with the preceding year, there is a reduction of 139·8 per 1,000 in the rate of admissions for diseases of the *febrile* group, but this is accompanied by a five-fold greater death-rate; the rate of admissions of diseases of the *constitutional* group, a little exceeds that of 1874, and the death-rate is not far from twice as great.

The admissions and deaths from the principal diseases of this class are shown in the following Table:—

West Indies Command.

Black Troops.	1875.				1869–74.	
General Diseases.	Strength 1,223.		Ratio per 1,000.		Ratio per 1,000.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile Group—						
Eruptive Fevers	6	1	4·9	·81	5·5	..
Continued „	31	2	25·3	1·64	47·3	·70
Yellow Fever	..	..	..	..	·7	·12
Paroxysmal „	110	2	90·0	1·64	114·3	1·06
Influenza	..	..	..	..	1·5	..
Erysipelas	..	..	..	..	·1	..
Other diseases of this group	2	1	1·6	·81	5·5	..
Total	149	6	121·8	4·90	174·9	1·88
Constitutional Group—						
Rheumatism	81	..	66·2	..	68·7	·12
Syphilis	220	..	180·0	..	143·0	·23
Scrofula, Phthisis, &c.	36	8	29·4	6·54	26·5	8·12
Scurvy and Purpura	..	..	..	..	·2	..
Anæmia	3	..	2·4	..	1·3	..
Other Diseases	..	..	..	..	1·0	·12
Total	340	8	278·0	6·54	240·7	8·59

Eruptive Fevers.—Of the six admissions, two were due to small-pox, and four to measles.

Continued Fevers.—The rate of admissions for fevers of this kind is less than one-fourth of that of the preceding year. *Enteric Fever.*—One admission for this disease occurred, that of a man of the 2nd West India Regiment, stationed at Port Royal in Jamaica; the illness was fatal. *Simple Continued Fever.*—23 admissions are returned under this head; one case at Up Park Camp, Jamaica, being fatal; no details respecting it are given.

Paroxysmal Fevers.—The rate of admissions is 25·8 per 1,000 of the strength lower than that of 1874; but the proportional mortality was greater. From *Remittent Fever*, there were two deaths—one at Jamaica, and one at the Bahamas. The Medical Officer in charge of the detachment of the 2nd West India Regiment at Honduras, remarks on the diminished prevalence of *Ague*, compared with that of the preceding year; and at Demerara there were only 15 admissions for *paroxysmal fevers* in an average strength of 304 non-commissioned officers and men.

Other Diseases.—One admission for pyæmia, took place at Up Park Camp; the case ended fatally.

Rheumatism.—The rate of admissions is one-third lower than that of the preceding year.

Syphilis.—The rate of admissions is 31·2 per 1,000 higher than that of 1874.

Scrofula, Phthisis, &c.—The rate of admissions is 9 and the rate of deaths is 2·65 per 1,000 higher than in the preceding year. The rate of prevalence for diseases of this kind is three-fold greater than that of the White Troops serving in this Command, and the rate of deaths is higher in the same proportion.

LOCAL DISEASES.—*Diseases of the Nervous System*—One death in this order is returned as due to epilepsy; the Medical Officer states that the disease was suspected to be of syphilitic origin, and at the examination of the body a gummatous tumour was found in the anterior portion of the left lobe of the brain.

West Indies Command. *Diseases of the Digestive System.*—The rate of admissions is 29·5 per 1,000 lower than that of the preceding year; both of the deaths were due to dysentery.

Diseases of the Urinary System, are in a higher rate of prevalence than in 1874.

Diseases of the Cutaneous System.—There is a reduction of 37 per 1,000 on the rate of admissions in the preceding year. One admission is returned as due to "beef worm;" it took place at Honduras; the Medical Officer of the detachment there states, that the parasite producing the affection is common in that colony, and that it appears to be the same as that which causes the "Bulama boil" of the West Coast of Africa.

Poisons.—Both of the admissions in this class were due to eating poisonous fish

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SANITARY REPORT.

Jamaica. Surgeon-Major Thornhill reports:—"On the whole, the health of the troops serving in Jamaica during the past year (1875) has been excellent, when compared with that of previous years.

Referring to the sickness at Newcastle, Surgeon-Major Hoysted states it to have been connected in some measure with the rains, which, more especially in 1874, were very unseasonable, and extended over an unusually long period; but there is far more reason, he believes to associate the diseases with local, than, with any general atmospheric influences—wet clothes, intemperate habits, and the drinking of water containing suspended vegetable matter, and other deleterious substances. With this statement as to the probable cause of sickness at Newcastle, Surgeon-Major Thornhill agrees, and urges the erection of a drying-room at Newcastle, as previously recommended by him, for the purpose of drying the men's clothes after getting wet in the heavy showers prevalent at this station. The building of a gymnasium and swimming bath would, it is thought, have the effect of diminishing intemperance and improving the men's general health; the latter might be constructed with little expense. The construction of filtering beds for the water set apart for drinking purposes is very much needed before the urgent sanitary requirements of this post can be called complete.

Many improvements, in a sanitary point of view, have been effected during the year at the several stations.

Statement of sanitary improvements carried or being carried out:—

Up Park Camp.—Filtering apparatus for main tanks authorised; additional ablution accommodation provided; bush in vicinity of camp cleared away; additional cooking arrangements provided; and main tanks and bath cleansed.

At *Newcastle.*—(1) Additional cooking accommodation; (2) conversion of the officers' latrines to the dry-earth system; (3) additional latrine accommodation, with repairs; (4) ventilation and drainage improved, tanks cleansed, barracks and hospital limewashed, and bush cleared away.

One case of cholera appeared at Up Park Camp, in an officer of the 2nd West India Regiment; this was the only case that occurred in the island, so far as I have been informed. Yellow fever to some extent occurred amongst the civil population; the troops all escaped."

SANITARY REPORT.

Barbadoes. Deputy Surgeon-General Gilborne reports:—"The health of the troops, and of the island generally, has been excellent during the year 1875.

The Head-Quarters and three Companies of the 35th Regiment (Royal Sussex) landed on the 18th November in good health. The Head-Quarters of the 98th Regiment, stationed at St. Ann's since February 1873, having been relieved by the 35th Regiment, embarked for Malta on board the "Himalaya," on the 23rd November.

The diseases treated in hospital during the year have not been of a serious nature; venereal diseases furnished nearly one-fourth of the admissions.

The Black Troops have been tolerably healthy. The detachment 2nd West India Regiment, and Corps of Military Labourers, were stationed at St. Ann's throughout the year.

West Indies Command.

Barracks.—The sanitary condition of the barracks has been satisfactory. A suitable quarter for the married soldiers, Royal Artillery, has been erected and taken into use."

The remaining sanitary improvements have been of a minor character.

Section II.

On the Extent of Invaliding.

West Indies and West Africa Commands.

Twenty-six non-commissioned officers and men of the White Troops were invalided home, and 24 invalids from the Command were finally discharged at Netley during the year, giving a rate of 23· per 1,000 of the strength in respect of the first, and of 21·22 per 1,000 in respect of the last. The proportion of invalids sent home is a little lower than that of the preceding year, but the proportion of the finally discharged is double.

Of the Black Troops serving in the West India and in the West Africa Settlements Commands together 45 non-commissioned officers and men were discharged the Service during the year, being in the proportion of 25·90 per 1,000 of the strength.

	White Troops.		Black Troops.
	West Indies Command.		West Indies and West Africa Command.
Mean Strength	1,131.		1,734
Classes of Disabilities.	Invalids sent Home.	Discharged as Invalids at Netley.	Discharged as Invalids in the Colonies
I. *General Diseases.*			
Constitutional Group.. ..	8	12	25
II. *Local Diseases.*			
Diseases of the—			
Nervous System	2	..	4
Eye	..	..	2
Ear	..	2	1
Circulatory System	3	5	4
Respiratory ,, ...	1	..	..
Digestive ,, ...	5	..	..
Urinary ,, ...	1	1	2
Locomotive ,, ...	1	1	..
Cellular Tissue	..	..	1
Cutaneous System	..	..	2
III. *Debility*	4	2	2
V. *Injuries.*			
Accidental	1	1	
General Total	26	24	45
Ratio per 1,000 of Mean Strength .. 1875 ...	23·00	21·22	25·90
1864-73	31·82	15·05	15·37

Section III.

Mean Daily Sick.

West Indies Command.

The average number of White Soldiers always ineffective from sickness was 47·25; the average number of Black Soldiers ineffective was 71·92.

The usual information calculated from these numbers is given in the ollowing Table :—

Constantly Sick.		47·25	71·92
		White Troops.	Black Troops.
Ratio per 1,000 of strength of constantly Sick.	1875 ..	41·78	58·81
	1865–74 ..	46·80	58·02
		days.	days.
Mean sick time to each Soldier.	1875 ..	15·25	21·46
	1865–74 ..	17·08	21·16
Average duration of each case of sickness	1875 ..	18·10	21·14
	1865–74 ..	16·35	20·43

Section IV.

On the Influence of Age on the Mortality.

In consequence of the small number of men who had completed a residence of 12 months in the Command, the statistics on this subject have not been compiled.

VII.—ON THE HEALTH OF THE TROOPS SERVING IN THE WEST AFRICA SETTLEMENTS COMMAND.

Section I.

Sickness and Mortality

STATISTICAL REPORT.

1.—WHITE TROOPS.

West Africa.

THE White troops serving in the Command consisted of Staff-Serjeants of the 1st West India Regiment, their average annual strength was 9; the admissions into hospital amongst them were 21, and there was one death. Three Staff-Serjeants were invalided during the year.

The admissions were chiefly due to paroxysmal fevers; the death was due to delirium tremens; the diseases necessitating the invaliding of the three non-commissioned officers, were phthisis, remittent fever, and dysentery.

2.—BLACK TROOPS.

The Black troops serving in the West Africa Settlements Command, consisted of the service companies of the 1st West India Regiment, detachments of which were stationed at Sierra Leone, Cape Coast, and Accra; for part of the month of January the station of Elmina was also occupied.

The average strength of the Black troops was 511; the admissions into hospital were 615; the deaths were 10. The rates represented by these numbers are—for admissions 1203·5 and for deaths 19·57 per 1,000 respectively. The first rate is 646· and the last is 15·70 per 1,000 lower than the corresponding rate of the preceding year, both are also much lower than the average rates for ten years.

The following Table shows the admissions and deaths in each class and order of diseases:—

West Africa.

Order.	Black Troops.	1875.				1869–74.	
	Diseases.	Mean Strength, 511.		Ratio per 1,000.		Ratio per 1,000.	
		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*						
1	Febrile Group	143	..	279·8	..	548·7	7·02
2	Constitutional ,, ...	165	5	322·9	9·78	232·5	6·73
	II. *Local Diseases.*						
	Diseases of the—						
1	Nervous System	9	2	17·6	3·91	16·7	2·63
2	Eye	12	..	23·5	..	21·9	..
3	Ear	..	..	..	..	2·3	..
4	Nose	..	..	..	..	·9	..
5	Circulatory System ..	3	..	5·9	..	7·3	1·17
6	Absorbent ,, ..	3	..	5·9	..	16·7	..
8	Respiratory ,, ..	44	1	86·1	1·96	98·0	4·68
9	Digestive ,, ..	54	1	105·7	1·96	227·0	10·24
10	Urinary ,, ..	45	..	88·1	..	114·4	·88
11	Generative ,, ..	9	..	17·6	..	25·4	..
12	Organs of Locomotion ..	7	..	13·7	..	15·2	·58
13	Cellular Tissue	9	..	17·6	..	52·6	·58
14	Cutaneous System ..	66	..	129·2	..	137·5	..
	III. *Conditions, &c.*						
	Debility	6	..	11·7	..	13·2	..
	IV. *Poisons.*	1	..	1·9	..	·9	..
	V. *Injuries.*						
1	Battle	..	..	..	..	20·5	2·05
2	Accidental	38	..	74·4	..	86·0	1·17
3	Homicidal	1	1	1·9	1·96	..	..
4	Self-inflicted	..	..	..	..	1·1	..
6	Judicial	..	..	..	..	·9	..
	IV. *Surgical Operations* ..	..	..	..	..	·6	..
	Not stated	..	..	..	..	1·4	..
	No appreciable disease ..	..	..	..	..	·3	..
	Total	615	10	1203·5	19·57	1642·0	37·73
	Average of 10 years 1865-74	..	..	1462·6	35·79	..	..

General Diseases.—The rate of diseases of the *febrile group*, is less than the half of that of 1874, and no illness was fatal; the rate of prevalence of diseases in the *constitutional group*, is one-third higher than in the preceding year, and that of deaths is higher in about the same proportion.

The following Table shows the admissions and deaths from the principal diseases in this class:—

West Africa.

Black Troops.			Ratio per 1,000 of Mean Strength,	
			1875.	
General Diseases.	Admitted.	Died.	Admitted.	Died.
Febrile Group—				
Continued Fever..	1	..	1·96	..
Paroxysmal ,, ...	141	..	275·92	..
Other diseases	1	..	1·96	..
Total	143	..	279·84	..
Constitutional Group—				
Rheumatism	65	..	127·20	..
Syphilis	76	..	148·73	..
Scrofula, Phthisis, &c.	22	4	43·05	7·82
Anæmia	1	..	1·96	..
Other Diseases	1	1	1·96	1·96
Total	165	5	322·90	9·78

Eruptive Fevers.—There was no admission due to a fever of this nature during the year.

Continued Fevers.—Only one admission (for *febricula*) is returned under this head.

Paroxysmal Fevers.—Nearly the whole of the decrease in the rate of diseases in the febrile group on that of the preceding year occurs in fevers of this nature. Two-thirds of the admissions were due to ague, and one-third to remittent fever. The proportional prevalence of these diseases was considerably greater in the Gold Coast, than in the Sierra Leone portion of the Command.

Other Diseases.—The admission was due to diphtheria; it took place at Accra, on the Gold Coast.

Rheumatism.—The rate of prevalence is 41· per 1,000 men higher than in the preceding year.

Syphilis.—This disease was more prevalent than in 1874, and was proportionately most so at Sierra Leone; the excess on the rate of the preceding year is 38· per 1,000 men.

Scrofula, Phthisis, &c.—Diseases of this nature were more prevalent than in 1874, and caused a higher rate of mortality. All the deaths were due to consumption, the disease from which the negro of West Indian origin, suffers in such disproportionate frequency.

Local Diseases.—Diseases of the *nervous system*, were less prevalent, but were fatal in more instances than in 1874. The deaths from diseases in this order were due to apoplexy, and to paralysis.

Respiratory System.—The rate of admissions for diseases of this order is less than that of the preceding year by 63·, and that of deaths is less by 3·04 per 1,000 men, reductions mainly to be ascribed to the fact that the men were not, as in 1874, exposed to the hardships of field service. The death followed an attack of pneumonia.

Diseases of the Digestive System.—The rate of prevalence of diseases of this order is not much more than one-third, and that of deaths is less than one-fifth, of the corresponding rate of 1874, results due to the same cause as that noted above. The admissions for dysentery, and for diarrhœa together, in the Gold Coast part of the Command, were 23; in the Sierra Leone part, in a much greater strength, they were only four.

Diseases of the Cutaneous System.—The prevalence of diseases of this order was a little less than in the preceding year. Respecting the admissions from

West Africa.

one disease in it, the following remarks occur in the Report of the Medical Officer at Cape Coast:—"The ulcers on the legs were very often caused by the "uncomfortable gaiters the men wear; they were often difficult to heal, and "were apt to recur on the slightest irritation." He also notices that there was not a single admission from guinea-worm during the year, an almost unprecedented occurrence at that station.

INJURIES.—*Homicidal.*—One injury is returned in this order—a fracture of the skull; it resulted in death.

Officers.

The average annual strength of Officers stationed in the West Africa Settlements Command was 29; the number of cases of illness amongst them was 55; the only death of which notice has been received occurred at Sierra Leone, and is returned as due to ague. Of the illnesses, 30 were due to paroxysmal fevers, and 8 to dysentery, or to diarrhœa.

Six Officers were invalided during the year, 4 on account of ague, or of remittent fever, and two on account of dysentery, or of diarrhœa.

SANITARY REPORT.

Surgeon-Major Gray remarks that, "on the Gold Coast, the admissions for zymotic disease are, as usual, large; but the mortality has not been high. The rainy season on the Gold Coast was of short duration, and the greatest amount of rainfall in May and June; and the total amount of rainfall is said to be below the average of former years. The health of Europeans on the Gold Coast was rather better than usual, and the fevers of a mild type."

Surgeon-Major Gray only arrived at Sierra Leone and took over medical charge on the 17th January 1876.

During the past year a plunge bath, abundantly supplied with a constant flow of fresh water, has been constructed at Sierra Leone, affording ample accommodation for both officers and men.

Notwithstanding the recommendations made by Medical Officers with regard to ventilation, little has yet been done. In 1873, the ventilation of the Officers' quarters was somewhat improved by the cutting of large square holes through the walls. In the old Staff Sergeants' quarters, large holes were cut in a similar manner, and openings through the ceiling, which communicate with ridge ventilation through the roof, have been made, improving the ventilation considerably.

VIII.—ON THE HEALTH OF THE TROOPS SERVING AT THE CAPE OF GOOD HOPE AND ST. HELENA.

Section I.

Sickness and Mortality.

STATISTICAL REPORT.

Cape of Good Hope and St. Helena.

The average annual strength of the force was 2,741 non-commissioned officers and men, of whom 185 were stationed in St. Helena. The admissions into hospital (in both portions of the Command) were 2,126; the deaths, including those of 5 invalids on the voyage home or at Netley, were 20. The rates given by these numbers are, for admissions, 775·6, and for deaths, 7·30 per 1,000 of the mean strength. The first is 130·2, and the last is 7·10, or one-half lower than the corresponding rate of the preceding year.

For the St. Helena portion of the Command, taken separately, the admission rate is 908·1, and the death rate 5·41 per 1,000 of the mean strength.

The corps which composed the force stationed in the Command, with certain of the most important of their health statistics, are shown in the following Table:—

Cape of Good Hope and St. Helena.

Corps.	Years of service in the Command.	Average annual strength.	Admitted into hospital.	Died.	Invalided.	Average Daily Sick.	Ratio per 1,000 of Strength.				Average sick time to each soldier.	Average duration of cases of sickness.	Stations.
							Admitted.	Died.	Invalided.	Daily Sick.	days.	days.	
Royal Artillery.. ..	..	207	196	2	9	9·26	946·9	9·66	43·48	44·73	16·32	17·24	St. Helena, Cape Town, Natal, Griqualand West.
Royal Engineers ..	..	93	83	..	1	2·97	892·5	..	10·75	31·94	11·66	13·06	St. Helena, Cape Town.
1st Bn., 13th Foot ..	*1	881	684	2	6	29·24	776·4	2·27	6·81	33·19	12·11	15·60	Natal, D'Urban, King William's Town, East London.
1st „ 24th „ ..	†1	868	750	7	8	42·17	864·1	8·06	9·22	48·58	17·63	20·52	Cape Town, Simon's Town, Griqualand West.
32nd Foot..	3	509	274	5	9	13·10	538·3	9·82	17·68	25·73	9·39	17·45	King William's Town, Fort Murray, East London.
75th „	‡	84	48	2	..	2·05	571·4	23·81	..	24·40	8·91	15·59	Natal, King William's Town.
86th „	‡	53	64	2	..	3·64	1207·5	37·74	..	68·68	25·07	20·76	Cape Town.
Army Service Corps..	..	8	2	..	..	·36	..	..	..	..	..	..	
Army Hospital Corps	..	31	6	..	..	·48	..	..	..	..	..	..	
Staff, &c.	..	7	..	..	..	..	..	..	..	..	..	..	

* Arrived in Command on 6th January. † Arrived in Command on 1st January. ‡ Left the Command in February.

Cape of Good Hope and St. Helena.

In the following Table, the admissions and deaths in the different classes and orders of diseases are shown :—

		1875.						1869–74.	
		Mean Strength, 2,741.						Annual Ratio per 1,000 of Strength.	
			Deaths.			Ratio per 1,000			
Order.	Diseases.	Admitted.	In Command.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group ..	150	2	..	2	54·7	·73	107·7	·70
2	Constitutional ,, ..	474	..	1	1	172·9	·37	190·3	2·55
	II. *Local Diseases.*								
	Diseases of the—								
1	Nervous system	38	2	1	3	13·9	1·09	12·7	1·34
2	Eye	89	..	..	..	32·5	..	42·0	..
3	Ear	15	..	..	..	5·5	..	4·5	..
4	Nose	1	..	..	..	·4	..	·3	..
5	Circulatory system ..	36	3	1	4	13·1	1·45	13·1	1·68
6	Absorbent ,, ..	48	..	..	..	17·5	..	17·4	..
8	Respiratory ,, ..	65	1	1	2	23·7	·73	34·7	·81
9	Digestive ,, ..	318	1	..	1	116·0	·37	151·7	1·80
10	Urinary ,, ..	175	..	..	..	63·9	..	173·1	·12
11	Generative ,, ..	22	..	..	..	8·0	..	14·9	..
12	Organs of Locomotion ..	11	..	1	1	4·0	·37	5·3	·12
13	Cellular Tissue	72	..	..	..	26·3	..	24·8	..
14	Cutaneous system ..	178	..	..	..	64·9	..	86·2	..
	III. *Conditions, &c.*								
	Debility	31	..	..	..	11·3	..	7·3	·17
	IV. *Poisons* ..	10	1	..	1	3·6	·37	8·0	·35
	V. *Injuries.*								
2	Accidental	391	4	..	4	142·6	1·45	126·1	1·22
3	Homicidal	..	..	..	..	..	..	·1	·06
4	Self-inflicted	..	1	..	1	..	·37	·3	..
	VI. *Surgical Operations*	1	..	..	..	·4	..	·5	·23
	No appreciable disease ..	1	..	..	..	·4	..	1·1	..
	Total	2,126	15	5	20	775·6	7·30	1022·1	11·15
	Average of 10 years, 1865-74	..	..	..	..	1056·3	11·12	..	..

General Diseases.—The rate of admissions for diseases in this class is less than that of the preceding year by 35·6 per 1,000 men, and the rate of deaths is less by 1·38 per 1,000. The decrease is due to the lesser prevalence of diseases in the febrile group, the rate of admissions for which is less than the half of the corresponding one of 1874. The proportion of admissions for diseases in the constitutional group exceeds that of the preceding year by 25·3 per 1,000 of the strength.

The admissions and deaths from the principal diseases in the class of general diseases, are shown in the following Table :—

Cape of Good Hope and St. Helena.

General Diseases.	1875.						1869-74.	
	Mean Strength, 2,741.						Annual Ratio per 1,000 of Strength.	
		Deaths.			Ratio per 1,000			
	Admitted.	In Command.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
Febrile—								
Eruptive Fevers	2	..	..	..	·7	..	1·6	..
Continued ,, ...	84	1	..	1	30·6	·36	43·4	·35
Paroxysmal ,, ...	36	..	..	..	13·1	..	32·7	·29
Cholera	1	..	..	..	·4	..	..	..
Influenza	17	..	..	..	6·2	..	25·1	..
Erysipelas	7	1	..	1	2·6	·36	3·9	·06
Other Diseases of this Group ..	3	..	..	..	1·1	..	1·0	..
Total	150	2	..	2	54·7	·72	107·7	·70
Constitutional—								
Rheumatism	140	..	..	..	51·1	..	40·1	·06
Syphilis	317	..	..	..	115·6	..	138·5	·23
Scrofula, Phthisis, &c.	12	..	1	1	4·4	·36	9·3	2·26
Scurvy and Purpura	..	..	..	..	..	..	·1	..
Anæmia	3	..	..	..	1·1	..	1·2	..
Other Diseases of this Group ..	2	..	..	..	·7	..	1·1	..
Total	474	..	1	1	172·9	·36	190·3	2·55

Eruptive Fevers.—The admissions for fevers of this nature were due, one to measles, the other to vaccination.

Continued Fevers.—The rate of admissions is almost the same as that of the preceding year. Enteric fever caused three admissions, of which two occurred in the 1st Battalion 24th Regiment, at Cape Town; one of the attacks proved fatal. The admissions for simple continued fever were 30 in number, of which nearly two-thirds are returned by the 1st Battalion, 13th Regiment. Respecting the cases of this form of fever in the 1st Battalion of the 24th, the Medical Officer writes: "I think it probable "that one, if not two, of the cases returned as simple continued, were really "typhoid, for this specific fever abounds here in a mild form." Febricula caused 49 admissions.

Paroxysmal Fevers.—The admissions for fevers of this nature were 29 for ague, and 7 for remittent fever. The 32nd returns a larger number for the first-named disease than any other regiment, as might be expected from the fact of many of the men having served at the Mauritius.

Cholera.—The admission for this disease was that of a man of the 32nd Regiment, whose illness, choleraic diarrhœa, was occasioned by eating unripe fruit.

Erysipelas.—The rate of prevalence of this disease is less than a quarter of that of the preceding year.

Influenza.—The rate of admissions is less, by 40·7 per 1,000 men, than that of the preceding year, and it is chiefly to its diminished prevalence that the decrease in the rate of diseases of the febrile order is due.

Other Diseases.—The admissions returned under this head were, two for diphtheria, and one for pyæmia.

Rheumatism.—The proportional prevalence of rheumatism was the same as in 1874.

Syphilis.—The rate of admissions for this disease exceeds that of the *ape of Good Iope and St. Helena.*

preceding year by 30·9 per 1,000 men. Nearly two-thirds of the whole admissions are returned by the 1st Battalion 24th, stationed at Cape Town.

Scrofula, Phthisis, &c.—Both the prevalence and the fatality of these diseases, was considerably less than in the preceding year.

Local Diseases. *Diseases of the Eye.*—The rate of admissions for diseases of the eye, nearly all of which were on account of conjunctivitis, is one-third lower than that of the preceding year. More than half the admissions are returned by the 1st Battalion 13th Regiment; the Medical Officer of which states that the men of the battalion suffered from the same disease when at their former station.

Circulatory System.—With a rate of prevalence nearly the same as that of the preceding year, the rate of deaths from diseases of this nature is much lower.

Digestive System.—Compared with the preceding year, there is a decrease of 70·8 per 1,000 men in the rate of admissions, and of 2·11 in the rate of deaths. The admissions from tonsillitis, from dysentery, and from diarrhœa, were many fewer than in 1874, a circumstance perhaps accounted for in the case of the two last-named diseases, by the fact that two regiments, which had served long abroad, left the Cape Command in the year. The admissions for dyspepsia are considerably more numerous in the present, than in the preceding year.

Diseases of the Urinary System.—The rate of admissions a little exceeds the corresponding one of 1874. It is less however than the half of the proportion of the average of six years.

Conditions, &c. *Debility.*—The rate of admissions for this affection exceeds that of 1874 by 6· per 1,000 men; it prevailed in the 1st Battalion 13th Regiment (which returns nearly one-half of all the admissions), and amongst the troops at St. Helena.

Injuries.—*Accidental Injuries*, were more frequent but were less fatal than in 1874. Of the four deaths, two were due to multiple injuries, and two to drowning. *Self-Inflicted.*—The death returned in this order was from cut-throat.

Officers.

The average annual strength of the officers serving in the Command was 105; amongst whom there were 35 cases of sickness, and 2 deaths; the proportions given by these numbers are, for cases of sickness, 333·3, and for deaths, 19·05, per 1,000 of the strength. The deaths were due, one to dyspepsia, and one to hepatitis.

Women.

The average annual strength of the wives of soldiers in the Command, was 210; the cases of sickness amongst them were 107; the deaths, 3. The proportions given by these numbers are, for cases of sickness, 509·5; for deaths, 14·29 per 1,000 of the strength. Of the deaths, two were connected with the puerperal state, and one was due to embolism.

Children.

The average annual strength of the children of the non-commissioned officers and men was 438; the cases of sickness amongst them were 277; the deaths, 21. The proportions given by these numbers are, for cases of sickness, 632·4; for deaths, 47·95 per 1,000 of the strength. The numbers given are those for the Cape and for the St. Helena portions of the Command together, but most of the sickness, and the whole of the mortality, occurred in the Cape of Good Hope section, the rate of deaths for which amounted to 56·45 per 1,000 of the strength; this exceeds the rate of England for persons of the same ages by 23·23 per 1,000. Of the deaths, 5 were due to diphtheria, and 5 to whooping-cough.

SANITARY REPORT.

Cape of Good Hope.

Deputy Surgeon-General Heffernan reports that:—"The sanitary state of the Command, during the year 1875, was generally good; such defects in the

Cape of Good Hope.

existing buildings as could easily be amended, have been rectified; others, that required a large expenditure of money, have been noted and referred for approval.

The health of the troops has been very good; the ratio of admissions and deaths per 1,000 annual average strength are less than they have been for many years, and indeed contrast favourably with those of the Army at Home. The prevailing diseases were venereal affections, which formed more than one-fourth of the whole number of admissions. Accidents come next in frequency, and the diseases of the digestive organs. There has not been any epidemic during the year, nor any amount of serious disease.

Sanitary defects.

The sanitary defects existing at present are much the same as those formerly noticed, and frequently represented—viz., in *Cape Town*, the state of the Castle ditch, through which three of the town drains pass, and the state of the sea beach and foreshore between the Castle and Military Hospital. These drains discharge themselves on the beach, above low water-mark, polluting the soil and producing unhealthy exhalations that are injurious to the inmates of the Castle and Military Hospital, in certain states of the wind and tide. This state of affairs has been the subject of frequent complaint and correspondence with the municipal authorities, but no assistance could be obtained from them.

On the *Eastern Frontier*, at King William's Town, some of the men's, and most of the married soldier's quarters, consisting of old wattle and daub huts, are in a bad state of repair, but it would be a waste of money to endeavour to improve them. The hospital, also, is insufficient in size, and objectionable in other respects.

In *Natal*, owing to the increased number of the garrison recommended by Sir Garnet Wolseley, there is a want of accommodation, probably to the extent required for 500 men. The necessity being urgent and pressing, orders have been sent for the erection of kraal huts, but this can only be looked on as a temporary expedient. At this station, the hospital, being formed of old wooden huts, is not only too small, but nearly unfit for occupation. Proper quarters for the married soldiers are also urgently required. The sanitary improvements that are required are therefore very important and extensive, and can easily be gathered from the above.

Sanitary improvements.

Those carried into effect during the year were:—New latrines for women and children; increased latrine accommodation for men in the Infantry barracks at King William's Town, with new urinals and increased ablution accommodation in the station hospital there; a new water tank, to contain 112,500 gallons, and new ablution room at Fort Napier, Natal; with current repairs to the barracks, &c., through the division generally."

SANITARY REPORT.

St. Helena.

Surgeon-Major Herbert reports that James Town, in which the Infantry barracks (now almost empty, being occupied by a few soldiers' families only), the Military Prison, and Hospital are situated, is placed in a valley between two high rocky ranges of hills, but open to the influence of the trade winds. The climate is here hot and enervating: fevers and abdominal affections are the prevailing diseases of the inhabitants. Ladder Hill, where the main body of the troops is located, is very much healthier; it is more than 600 feet above the sea-level. It is, however, hot and enervating during the day from direct solar and radiated rock heat; but the nights (except during the height of summer) are generally cool and refreshing, and make it very superior to James Town as a military station.

Dr. Herbert remarks that Ladder Hill barracks has, in addition to the doors and windows, have very good ridge and side ventilation, which render it healthy. New barrack rooms at High Knoll are about to be constructed, the old ones having been pulled down in re-building the fort. The wind blows, as a rule, from the south-east throughout the year, but with certain variations of the N.E. wind some nuisance is complained of from the effluvia of the latrines, which are built on the edge of the cliff, and some of the soil lodges on the verge of the rock, about 200 ft. or 300 ft. below, being blown back on the

St. Helena.

barracks. Unless some large iron tubes were carried right down to the water's edge this must be deemed unavoidable.

The old Military hospital at the head of James Town valley has been re-constructed, and put into thorough repair. It is about 80 ft. above the sea-level at the head of the valley, and about a quarter of a mile from the Infantry barracks, and is reported to be an excellent hospital, although its site in James Town valley is an objectionable one.

Surgeon-Major Herbert states that small-pox has not visited the island within the memory of the oldest inhabitant. This officer repeats the opinion previously expressed by him—viz., that the steepness of the hills, and the direct solar and radiated heat, make the climate a very trying one for Europeans, and that these causes tend to induce disorders of the heart and great vessels.

Section II.

On the Extent of Invaliding.

Cape of Good Hope and St. Helena.

Thirty-five invalids were sent home, seventeen from the Command were discharged the service at Netley, and one invalid was discharged in the Colony, during the year, being in the rates of 12·77 and of 6·57 per 1,000 of the strength respectively.

The classes and orders of the diseases which necessitated the invaliding of the year are shown in the following Table :—

Disabilities.	Invalids sent to England from the Cape and St. Helena.	Invalids Discharged the Service at Netley, and at the Cape.
I. *General Diseases.*		
Constitutional Group	11	3
II. *Local Diseases.*		
Diseases of the—		
Nervous System	4	3
Eye	3	..
Ear	1	1
Circulatory System	5	4
Respiratory "	2	..
Digestive "	1	1
Urinary "	1	1
Organs of Locomotion	5	4
III. *Conditions.*		
General Debility	1	..
V. *Injuries.*		
Accidental..	1	1
Total	35	18
Ratio per 1,000 of Mean Strength.. .. 1875 ..	12·76	6·57
Ratio per 1,000 of Mean Strength.. .. 1865–74 ..	28·41	20·85

The rate of primary, and also that of final invaliding, is lower than in the preceding year. The chief part of the reduction in both instances, occurs in disabilities due to diseases in the constitutional group.

Section III.

Mean Daily Sick.

Cape of Good Hope and St. Helena.

The average number constantly sick in the Command was 103·27, being in the proportion of 37·68 per 1,000 of the strength, showing a reduction of 5·93 on the corresponding rate of the preceding year.

The usual information, calculated from this number, is given in the following Table:—

	1875.	1865–74.
Ratio per 1,000 of Strength constantly Sick..	37·68	51·55
	days.	days.
Average Sick time to each Soldier	13·49	18·82
Average duration of cases of Sickness	17·73	17·81

Section IV.

Influence of Age on Mortality.

The following Table shows the influence of age, in quinquennial periods on the mortality amongst the troops serving in the Cape Command in 1875:—

Corps.	Under 20.		20 and under 25.		25 and under 30.		30 and under 35.		35 and under 40.		40 and upwards.	
	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.
Royal Artillery	4	...	79	...	73	...	44	1	33	1	5	...
Royal Engineers...	2	...	19	...	33	...	18	...	11	...	6	...
1st Battalion, 13th Foot ...	101	...	269	1	230	...	112	...	83	1	17	...
,, ,, 24th ,, ...	70	1	428	1	176	2	128	1	62	2	7	...
32nd Foot...	46	...	146	...	127	1	113	3	74	1	14	...
Total	223	1	941	2	639	3	415	5	263	5	49	...
Ratio per 1,000 of Mean Strength... 1875 ...	4·48		2·17		4·69		12·05		19·01		...	
Ratio per 1,000 of Mean Strength... 1865–74	1·23		6·14		11·07		15·11		23·70		26·49	

IX.—ON THE HEALTH OF THE TROOPS SERVING IN THE ISLAND OF MAURITIUS.

Section I.

Sickness and Mortality.

STATISTICAL REPORT.

Mauritius. The troops stationed at Mauritius during the year are shown in the subjoined Table. Their average annual strength was 415; the admissions into hospital were 549; and the deaths, including that of an invalid on his passage home, were 6. The rate of admissions is therefore 1322·9, and that of deaths 14·46 per 1,000 of the mean annual strength. The first is somewhat higher, but the last is 2·28 per 1,000 lower, than the corresponding rate of the preceding year.

Corps.	Completed years of service in the Command.	Strength.	Admissions.	Deaths.	Invalids.	Average Daily Sick.	Ratio per 1,000. Admitted.	Ratio per 1,000. Died.	Ratio per 1,000. Invalided.	Ratio per 1,000. Average Daily Sick.	Average Sick time to each man.	Average duration of cases of Sickness.
											Days.	Days.
Royal Artillery, 2nd Battery 4th Brigade	2	81	149	1	5	3·99	1839·5	12·33	61·73	49·26	17·98	9·77
32nd Foot, Wing	...	319	392	4	16	12·73	1229·0	12·54	50·16	40·00	14·56	11·85
Royal Engineers, Army Hospital Corps, and Garrison Staff	...	15	8	1	...	·26	533·3	66·66	...	17·33	6·33	11·86

The Royal Artillery, were quartered at Port Louis; the 32nd, at Mahebourg and Port Louis; a proportion of the men of both corps was also stationed at Curepipe throughout the year.

The following Table shows the admissions and deaths in the various classes and orders of diseases:—

Order.	Diseases.	Strength, 415.				1875.		1869–74.	
			Died.			Ratio per 1,000.		Ratio per 1,000.	
		Admitted.	At Mauritius.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group ..	258	1	..	1	621·7	2·41	802·4	2·94
2	Constitutional ,, ..	30	..	..	..	72·3	..	111·9	3·27
	II. *Local Diseases.*								
	Diseases of the—								
1	Nervous System ..	4	..	..	..	9·6	..	9·5	1·31
2	Eye	4	..	..	..	9·6	..	11·4	..
3	Ear	4	..	..	..	9·6	..	8·5	..
5	Circulatory System ..	17	..	..	..	41·0	..	8·2	2·29
6	Absorbent ,, ..	4	..	..	..	9·6	..	11·4	..
8	Respiratory ,, ..	19	1	..	1	45·8	2·41	31·1	·33
9	Digestive ,, ..	89	3	1	4	214·5	9·64	194·6	3·27
10	Urinary ,, ..	6	..	..	..	14·5	..	57·9	..
11	Generative ,, ..	2	..	..	..	4·8	..	13·1	..
12	Organs of Locomotion ..	7	..	..	..	16·9	..	3·3	..
13	Cellular Tissue	10	..	..	..	24·1	..	22·6	..
14	Cutaneous System ..	15	..	..	..	36·1	..	65·4	..
	III. *Conditions, &c.*								
	Debility...	7	..	..	..	16·9	..	5·6	..
	IV. *Poisons* ..	22	..	..	..	53·0	..	18·7	1·31
	V. *Injuries.*								
2	Accidental	51	..	..	..	122·9	..	100·1	·65
4	Self-inflicted	..	..	..	..	..	..	..	·33
	VI. *Surgical Operations*	..	..	..	..	..	..	·3	..
	Total	549	5	1	6	1322·9	14·46	1476·0	15·70
	Average of 10 years, 1865–74	..	..	..	..	1419·4	18·97	..	..

General Diseases.—The rate of diseases in this class is higher than in 1874, the increase being in the *febrile* group; in the *constitutional*, it is lower. The rate of mortality in the class is lower than in the preceding year.

The following Table shows the admissions and the deaths from the principal diseases in this class:—

Mauritius.

General Diseases.	Strength, 415.		Annual Ratio per 1,000 of Mean Strength.			
			1875.		1869–74.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile—						
Eruptive Fevers	1	..	2·4	..	·6	..
Continued „	9	..	21·7	..	72·0	..
Paroxysmal „	243	1	585·5	2·41	722·3	2·61
Influenza	5	..	12·1	..	5·9	..
Erysipelas	..	..	..	..	1·0	..
Other Diseases of this group	..	..	..	..	·6	·33
Total	258	1	621·7	2·41	802·4	2·94
Constitutional—						
Rheumatism	10	..	24·1	..	38·6	..
Syphilis	13	..	31·3	..	51·4	..
Scrofula, Phthisis, &c.	5	..	12·1	..	8·2	2·94
Scurvy and Purpura	..	..	..	..	·3	..
Anæmia	1	..	2·4	..	13·4	·33
Other Diseases of this group	1	..	2·4	..	..	..
Total	30	..	72·3	..	111·9	3·27

Eruptive Fevers.—The admission returned in this group of fevers was due to dengue, a disease hitherto classed amongst continued fevers, but as its affinities seem to be rather with eruptive fevers, the change in classification has now been made. The attack occurred in a man of the 32nd; no remarks concerning it are made in the report from that regiment.

Continued Fevers.—The rate of admissions is higher than that of 1874, though the alteration adverted to above would tend to reduce the rate of prevalence of continued fevers in the present year. The admissions returned in this group were, all excepting one, from *febricula.*

Paroxysmal Fevers. —The prevalence of fevers of this nature exceeded the rate of the preceding year by 27· per 1,000 men. All the admissions but three were due to *ague.* The prevalence of ague was apparently greatest in the Royal Artillery, the proportion of attacks to strength in them being 1000· per 1,000 men. In the 32nd, a body of men in their first year of residence in the country, the proportion is 527· per 1,000. The reports do not throw light on the probable causes of this disparity, which may be referable to difference of locality at which the greater number of the men of the two bodies of troops spoken of were stationed, as much as to, longer or shorter periods of residence in Mauritius. It appears also that a large number of men attacked with ague were treated out of hospital; the distribution of such attacks between the two corps is not stated, but it may have been such as to alter the proportional prevalence of paroxysmal fevers as deduced from the admissions into hospital. One attack of ague in a man of the 32nd proved fatal; death took place after the first stage of the ague had apparently been recovered from, and was preceded by coma and convulsions; the *post-mortem* appearances are not given. The Principal Medical Officer remarks that in the civil population of Mauritius, attacks similar to the one spoken of are common enough; he attributes their comparative rarity amongst the troops, to the prophylactic use of quinine.

Rheumatism.—The rate of prevalence is less than half that of 1874.

Syphilis, was more prevalent than in the preceding year, but the whole number of admissions is small.

Scrofula, Phthisis, &c.—The prevalence of diseases of this nature slightly exceeded that of 1874 and also the average.

LOCAL DISEASES.—*Circulatory System.*—A comparatively large increase in the rate of admissions in this order on that of the preceding year was caused by the prevalence of palpitation in the 32nd; no attacks of this disease are returned except in that regiment.

Diseases of the Respiratory System.—Diseases of this order were also greatly more prevalent; one attack of pulmonary apoplexy proved fatal.

Diesases of the Digestive System.—The rate of admissions a little exceeds that of 1874, and with this there is also a higher rate of mortality; all the deaths were due to dysentery, or to hepatitis.

POISONS.—The admissions in this class are in double the proportion of 1874; all excepting two were due to delirium tremens, or to alcohol poisoning, and were those of men of the 32nd Regiment.

INJURIES.—*Accidental.*—The rate of admissions is 37· per 1,000 lower than the corresponding rate of 1874. No injury resulted in death.

SANITARY REPORT.

Deputy Surgeon-General Small reports.—"The rainfall (49·98 inches) was 6·16 inches below the average for the last five years, and its distribution has been very abnormal. As a rule, it increases from September to February, decreases from February to June, and increases a little in July and August, falling again in September. This year a severe drought prevailed from January to April, and the maximum monthly fall, in place of occurring in February, occurred in May, which was unprecedently wet. The rainfall in December also was considerably above the average. November and December were remarkable for frequency of thunder and lightning, and January to April for their relative absence. No storm took place in the island during the year. The Southern Indian Ocean also, as far as has been ascertained, was remarkably free from cyclones, information respecting two storms, neither of which was of great violence or extent, having been obtained. In the Mauritius, it has been generally remarked that the seasons which are very stormy are usually the most sickly, and that dryness—that is, comparatively dry air—has a beneficial influence on the troops; the past year is a good example of this, owing to the exceptionally dry weather which prevailed from January to April.

Port Louis, Fort George.—The important sanitary works undertaken by the General Board of Health at the "Mer Rouge" have continued to progress in a satisfactory manner; much has been accomplished in filling-in and planting its foreshores, as well as several of the creeks and shallows in the immediate vicinity. A cutting has been made by the Royal Engineers to prevent the silting up of mud, which has proved very successful. The tree plantations on the shores of the "Mer Rouge" and between it and the Fort, thrive well, their luxuriant growth testifying to the large amount of organic matter they are using up.

Mahebourg.—This station, formerly so healthy, has, of late years, become the contrary, and, although more healthy than any other town or village on the sea-coast, paludal fever, which made its first appearance there in 1868, has become very common among its inhabitants, civil and military. Much has been done by the General Board of Health here, as in Port Louis, to reduce the many sources of malaria which surround our barracks, but it is hopeless to expect—the means at their disposal being too limited—that any marked influence will be attained for years to come. As already frequently reported, the existing water supply for the village and barracks continues insufficient, and not of very good quality. Some years ago, the Government resolved to obtain a comparative pure supply from the Creole River, which has a rocky bottom; all the requisite pipes and fittings have arrived, but are not yet laid.

The ground in the barrack compound reclaimed from the river, has been, as an experiment, partially planted with the Eucalyptus. I am doubtful, however, of their success in the Mauritius, on account of the climate on the coast line being too tropical, and in the higher temperate parts on account of hurricanes and rains.

Mauritius.

In the hospital, the floor of the ward in the larger building has been renewed and the soil underneath to some depth removed, which has greatly improved ventilation. The drainage in and around the buildings has been begun, and will be probably completed during the course of the year. Buildings have been hired in the village of Mahebourg for the married families, where they are now very comfortably housed.

Curepipe.—The huts, five in number, occupied by the Troops at the Sanitarium, have had an inner lining of wood supplied, and small verandahs placed on two sides of each building. There having been no increase to the hut accommodation during the year, tents were pitched on the available cleared ground close to them, and were occupied from June to November by 5 officers, 146 men, and 13 women and children. Cyclones being of frequent occurrence in the Mauritius during the hot and unhealthy months of December to March, tents unfortunately cannot be used during the whole year. The War Department ground upon which the Hut Sanitarium is situated, is 100 acres in extent, about midway distant from the two military stations on the coast—Port Louis and Mahebourg; the site, 2,000 feet above the sea, is 1½ miles distant from the village of Curepipe and its railway station; the land is mostly covered with small scrub, with here and there the remains of the former forests. Its climate is generally considered the most salubrious in the island, the air being cool and fresh, coming direct from the sea. The ground is naturally well drained, but the health of the site would be certainly improved were subsoil drainage practicable, as, after heavy rains, small collections of water are here and there formed, which disappear but slowly. The climate seems the most favourable in the island for the rearing of children; all the new resident families have come from coast districts, and, although they still occasionally show the effects of previous malarial influence, by mild relapses of ague, serious sickness is rare, and from long experience of the station, I am convinced that ague is an imported disease.

The water supply for the encampment is obtained from several springs in the immediate vicinity, which, during the driest season, have always furnished an ample store; the water is clear, cool, and sparkling; has no odour, nor is it exposed to any source of pollution in its course to the reservoir. A few yards below this reservoir, a large plunge bath has been constructed, in which the men bathe daily; and still lower down, and close to the officers' quarters, a small pool has been also cleared as a bathing-place. Filters are supplied to several of the huts. There are as yet no gardens at the stations, but the men are fairly well supplied with vegetables purchased in the village; they have a sufficient variety in their food to keep them in fair health and condition. The great desideratum at the station is the want of amusements for the men. The Royal Engineer Department, who are now occupied clearing ground for next season's encampment, have been requested to prepare some ground for cricket, and other out-door games. The ablution hut is well supplied with metal basins; the water, however, has to be carried by hand from the reservoir. The cookhouse is large, well-built of stone, and is fitted up with an excellent cooking range. The canteen hut, part of which is used as a recreation room is well supplied with the usual drinks and groceries. All the huts are supplied with an iron stove for burning wood—a great comfort during wet and cold weather.

The latrines and urinals on the disinfecting system by charcoal and sulphate of iron, are well adapted for the purpose, and fulfil every indication required of them."

CUREPIPE.

Meteorological Observations.

Table showing the monthly and yearly temperature of the air, and the monthly and yearly rainfall at Curepipe (1880 feet above the sea level), and 40 feet lower than the Hut Sanitarium.

The temperature is deduced from daily observations with verified maximum and minimum thermometers during the whole of 1870, from January to April 1871, and from March to August 1872.

The rainfall is deduced from daily observations taken during the 5 years 1869—73:—

Months.	Temperature of Air.				Rainfall.	Remarks.
	Maximum.	Minimum.	Mean.	Approximate Mean.		
	°	°	°	°	in.	
January ..	80·5	62·0	18·5	70·6	24·20	Wet and warm, with cool nights.
February ..	79·5	63·5	16·0	71·3	18·22	
March ..	78·3	64·0	14·3	71·2	15·89	
April ..	76·3	58·3	18·0	68·8	20·05	
May.. ..	75·0	56·0	19·0	66·0	6·15	Generally a fine month.
June ..	72·5	54·5	18·0	62·7	10·58	Increase of rain and moisture, but cool weather.
July.. ..	71·5	52·0	19·5	61·1	7·36	
August ..	67·5	53·5	14·0	60·1	11·29	
September ..	71·0	52·0	19·0	62·3	6·12	Driest months, generally fine weather, temperature increasing.
October ..	75·0	56·0	19·0	65·2	6·03	
November ..	75·0	58·0	17·0	67·2	5·18	
December ..	80·0	62·0	18·0	70·8	13·05	Temperature and rainfall ncreasing much.
Annual Mean ..	75·2	57·6	17·6	66·5	144·12	

The mean temperature of Curepipe being 66·5,° and that of Port Louis 70·0,° the difference in temperature for an altitude of 1880 feet is 10·5,° This is probably owing chiefly to Curepipe being much more exposed to the trade wind than Port Louis.

The mean annual rainfall at Port Louis is 39·09 inches against 144·12 at Curepipe.

Section II.

On the Extent of Invaliding.

During the year, 21 invalids were sent home, and one man from this Command was discharged the service at Netley during the same period. The proportion of the first is 50·60 per 1,000 men, being double that of the preceding year.

The following Table shows the classes and orders of the diseases which necessitated invaliding from the Command :—

Mauritius.

Class.	Order.	Diseases.	Invalids sent Home.	Discharged the Service at Netley.
I.	1	Febrile group	1	..
	2	Constitutional group ..	5	..
II.	5	Circulatory system ..	3	..
	8	Respiratory ,, ..	1	1
	9	Digestive ,, ..	3	..
	10	Urinary ,, ..	1	..
	12	Organs of Locomotion ..	2	..
	14	Cutaneous system ..	1	..
III.	..	Debility	2	..
IV.	..	Poisons	2	..
		Total	21	1
		Ratio per 1,000 of Strength. 1875 ..	50·60	2·41
		Ratio per 1,000 of Strength. 1865–74	44·15	16·18

Section III.

Mean Daily Sick.

The average number constantly sick was 16·98.

The following Table gives the usual information calculated from the above number :—

	1875.	1865–74.
Ratio per 1,000 of Strength constantly Sick	40·92	53·58
Mean Sick-Time to each Soldier	14·90	19·56
Average duration of cases of Disease	11·26	13·76

All the rates are in excess of the corresponding ones of the preceding year, that of constantly sick being higher by 5·09 per 1,000 men, and the mean sick time for each soldier is 1·82 days longer.

Section IV.

Influence of Age on the Mortality.

The following Table shows the death rates of the non-commissioned officers and men serving in the Command, at the several ages, arranged in quinquennial periods :—

Mauritius.

Corps.	Under 20.		20 and under 25.		25 and under 30.		30 and under 35.		35 and under 40.		40 and upwards.	
	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.
Artillery	2	..	22	..	32	..	9	1	8	..	5	..
32nd Foot.. ..	..	..	59	..	96	2	58	1	86	1	14	..
	2	..	81	..	128	2	67	2	94	1	19	..
Ratio per 1,000 ..	..		..		15·63		29·85		10·64		..	
Ratio per 1,000—* 1865–6, 1868–9, and 1873 . ..	4·42		4·59		16·83		14·16		25·32		26·32	

* The average of six years only has been taken in order to avoid the disturbance caused by epidemic years in the small numbers under observation.

X.—ON THE HEALTH OF THE TROOPS SERVING IN THE ISLAND OF CEYLON.

Section I.

Sickness and Mortality.

STATISTICAL REPORT.

1.—White Troops.

Ceylon.

The average annual strength of the non-commissioned officers and men of the White Troops stationed in the Command was 1,033, amongst whom there were 806 admissions into hospital, and 14 deaths, being in the rates of 780·2 and of 13·56 per 1,000 of the strength respectively; the rate of admissions is 53·8 per 1,000 lower, but that of deaths is 7·52 higher, than the corresponding rate of the preceding year.

The corps which formed the Force and certain of the most important of their health statistics are shown in the following Table :—

Corps.	Completed Years of Service in Command.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average Daily Sick.	Ratio per 1,000 of Strength.				Average Sick-time to each Soldier.	Average Duration of Cases of Sickness.	Stations.
							Admitted.	Died.	Invalided.	Daily Sick.	Days.	Days	
Royal Artillery. 6th and 7th Batteries, 2nd Brigade.	11	184	140	7	12	7·63	760·9	38·04	65·22	41·47	15·24	20·03	Colombo. Galle. Trincomalee.
57th Regiment	1	849	666	7	32	40·0	784·4	8·25	37.69	47·11	17·20	21·92	Colombo. Galle. Kandy.

Ceylon.

The admissions and deaths in the different classes and orders of diseases are shown in the following Table:—

	White Troops ..	Strength, 1,033.				Annual Ratio per 1,000.			
			Died.			1875.		1869–74.	
Orders.	Diseases.	Admitted.	At Ceylon.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group ..	93	1	..	1	90·0	·97	163·7	2·61
2	Constitutional ,, ..	45	1	..	1	43·6	·97	124·8	2·78
	II. *Local Diseases.*								
	Diseases of the—								
1	Nervous system ..	14	2	..	2	13·6	1·94	11·1	·69
2	Eye	40	..	..	..	38·7	..	32·0	..
3	Ear	5	..	..	..	4·9	..	10·8	..
4	Nose	..	..	..	..	..	..	·2	..
5	Circulatory system ..	16	3	1	4	15·5	3·87	16·3	1·56
6	Absorbent ,, ..	28	..	..	..	27·1	..	35·1	..
8	Respiratory ,, ..	16	..	..	..	15·5	..	37·4	·52
9	Digestive ,, ..	210	4	..	4	203·3	3·87	277·8	6·79
10	Urinary ,, ..	70	..	..	..	67·8	..	84·4	·52
11	Generative ,, ..	39	..	..	..	37·8	..	22·6	..
12	Organs of Locomotion	2	..	..	..	1·9	..	4·7	..
13	Cellular Tissue ..	21	..	..	..	20·3	..	29·5	..
14	Cutaneous system ..	96	..	..	..	92·9	..	104·4	·17
	III. *Conditions, &c.*								
	Debility	15	..	..	..	14·5	..	11·8	..
	IV. *Poisons* ..	2	..	..	..	1·9	..	18·8	·52
	V. *Injuries.*								
2	Accidental	93	2	..	2	90·0	1·94	125·1	1·22
4	Self-inflicted	..	..	..	..	..	..	·2	·34
	VI. *Surgical Operations*	..	..	..	..	..	..	·2	..
	No appreciable disease	1	..	..	..	1·0	..	1·7	..
	Total	806	13	1	14	780·3	13·56	1112·6	17·72
	Average of 10 years, 1865–74	..	..	..	..	1180·1	19·06	..	..

General Diseases.—The rate of admissions from diseases in this class is less by 54·5 per 1,000 men than the corresponding rate of the preceding year; both groups of the class show a reduced rate of admissions; in the *constitutional*, the decrease amounts to one-half.

The admissions and deaths from the principal diseases in this class are shown in the following Table:—

Ceylon.

Diseases.	Admitted.	Died	Ratio per 1,000 of Mean Strength.			
			1875.		1869–74.	
			Admitted.	Died.	Admitted.	Died.
Febrile—						
Eruptive Fevers	..	..	..	..	·3	..
Continued „	81	1	78·4	·97	54·2	·87
Paroxysmal „	11	..	10·6	..	99·7	1·40
Cholera	1	..	1·0	..	·4	·17
Influenza	..	..	..	..	6·8	..
Erysipelas	..	..	..	..	1·6	..
Other diseases of this group.	..	..	..	..	·7	·17
Total	93	1	90·0	·97	163·7	2·61
Constitutional—						
Rheumatism	17	..	16·4	..	25·7	..
Syphilis	23	..	22·3	..	76·3	·17
Scrofula, Phthisis, &c. ..	4	1	3·9	·97	11·1	2·26
Scurvy and Purpura ..	..	..	..	..	·8	..
Anæmia	1	..	1·0	..	9·0	..
Other diseases of this group	..	..	..	..	1·9	·35
Total	45	1	43·6	·97	124·8	2·78

Eruptive Fevers.—No admission for any fever of this kind took place.

Continued Fevers.—The rate of admissions is 10· per 1,000 men higher than the rate of 1874, for *enteric fever*, 1 admission is returned, being that of an artilleryman who was attacked at Colombo, and to whom the illness was fatal. The Medical Officer makes the following remarks in connection with this disease: "The only case of enteric fever occurred at Colombo, although "many of the cases of simple continued fever verged on, and perhaps "with justice might have been described as enteric fever." 56 admissions for *simple continued fever* are returned, the majority of them occurred at Colombo. The Medical Officer of the 57th Regiment writes, "The seve- "rity of the continued fever varies much, but the convalescence in all—even "in mild cases—is extremely protracted, a month or six weeks being required "before a man is fit for duty after an attack of fever of five or six days' "duration." *Febricula* caused 24 admissions.

Paroxysmal Fevers.—The rate of prevalence of fevers of this nature was less than the half of that of the preceding year, and readmissions made up one-half of the whole number of admissions.

Cholera.—One admission for this disease took place; the man when attacked was confined in the civil prison at Galle. Cholera broke out in the beginning of the year amongst the native population in different parts of the island; it diminished on the setting in of the rains, and reappeared as an epidemic in the months of June, and July, but during the whole of the year cases of the disease occurred occasionally in the northern parts of the country.

Rheumatism.—The rate of prevalence is little more than the half of that of 1874.

Syphilis.—The rate of prevalence is lower than that of the preceding year by 16·9 per 1,000 men.

Scrofula, Phthisis, &c.—The rate of prevalence is little more than one-fourth of that of the preceding year.

Local Diseases.—*Diseases of the Nervous System.*—There is an increase amounting to 9·6 per 1,000 men on the rate of admissions of the preceding year; half of the admissions were on account of mental disease, in some instances probably readmissions of the same individuals; the deaths were due in one case to apoplexy, in the other to sunstroke.

Diseases of the Eye, were much more prevalent than in 1874, the increase

Ceylon.

taking place altogether in the 57th Regiment; all the admissions, excepting two, were from conjunctivitis, they occurred for the most part in that portion of the corps which was stationed at Colombo. The Medical Officer attributes the occurrence of the disease to the glare of the sun, and to dust, he states that the attacks were apt to be followed by a granular condition of the eyelids, and that the disease necessitated the invaliding of three men.

Diseases of the Circulatory System, caused a slightly higher proportion of admissions than in the preceding year; the deaths were caused by hypertrophy, valve disease, fatty degeneration of the heart, and rupture of an aneurism of the thoracic aorta.

Diseases of the Digestive System, were more prevalent than in 1874, and the rate of mortality is 1·85 per 1,000 men higher; the more important diseases of this order, dysentery and hepatitis, were proportionately of most frequent occurrence in the Royal Artillery; most of the men of this corps were of longer tropical service than those of the 57th Regiment.

CONDITIONS.—*Debility*.—The rate of admissions is one-half of that of the preceding year.

POISONS.—The admissions for delirium tremens were only two in number, although drunkenness unfortunately was not rare.

INJURIES.—*Accidental.*—The admissions from accidents were considerably fewer than in 1874; one man died from the effects of concussion of the brain, and one was accidentally drowned.

Officers.

The average annual strength of the officers serving in the Command was 35; there were 15 cases of sickness and one death among them, and two officers were invalided home; the rates given by these numbers are for cases of sickness, 428·6; for deaths, 28·57; and for invaliding, 57·14 per 1,000 of the strength. The death was due to a tumour in the brain.

Women.

The average annual strength of the wives of soldiers in the Ceylon Command was 78; the cases of sickness amongst them were 60, being in the rate of 769·2 per 1,000; there was one death; the mortality is therefore in the proportion of 12·82 per 1,000. Dysentery, diarrhœa, and general debility, caused more sickness than any other diseases; the death was due to dysentery.

Children.

In an average annual strength of 145 children of non-commissioned officers and men, 48 cases of sickness only are returned; the deaths were 7, being in the proportion of 48·28 per 1,000. No sickness was due to any form of eruptive fever; the deaths were chiefly from the irritation of teething.

2.—NATIVE TROOPS.

The Native Troops employed in the Command consisted of a company of gun Lascars, having an annual average strength of 88 non-commissioned officers and men; the admissions into hospital amongst them were 12, being in the proportion of 136·4 per 1,000; the average number in hospital daily throughout the year was ·25. No death occurred during the year.

SANITARY REPORT.

Surgeon-Major Popplewell reports—"Various works in connection with the completion of barracks have been going on during the year, chiefly at Colombo, where a new guard-room is nearly finished, and a new block of barracks commenced.

Newara Eliya has not been occupied by Troops. The arrangement of

Ceylon.

sending invalids home by steamers at any time of the year practically does away with the necessity of using this station as a sanitarium.

The supply of water at Colombo, Kandy, and Galle is limited for ablution purposes. At Colombo an experiment is being tried of sinking two additional wells within a few feet of the well now in use. I have recommended the sinking of wells on the margin of the fresh-water lake, which would give an unlimited supply; but financial reasons prevent its being carried out. At Galle, the drinking-water is for months brought in water-carts from a distance of about 3 or 4 miles. At Kandy the water for ablution has, in dry weather, to be brought by water-carts from the lake, and the supply is inadequate. At Colombo and Kandy it is intended to construct water-works; and it is to be hoped that the water supply for the Troops will be obtained from this source. At Kandy the water supply for the town is so far arranged that tenders are out for the construction of the reservoirs.

The miserable lighting of the rooms in barracks is unaltered. Lamps to burn kerosine are being sent out from England, and will be some improvement.

Venereal diseases show a slight diminution, chiefly in admissions from primary syphilis. The police have taken more pains in carrying out the Contagious Diseases Act, which is in force in Colombo, Kandy, and Galle. There is a good deal of drunkenness; the climate, want of occupation and amusement, and facility of procuring liquor, all contribute to this end.

The hospitals are good in construction, and fully large for their requirements at all stations.

The change in the mode of sending invalids to England, which I recommended in my last year's report, viz.,—sending them by steamer through Suez Canal, in detail, as occasion requires, instead of keeping them for the one invalid ship of the year, has been adopted during the year, and works advantageously and well.

Cholera does not often visit Ceylon as an epidemic, but during the first half of the year it prevailed in Colombo, Galle, and, in a slighter degree, Kandy, among the native inhabitants. Cases continued to occur in northern parts, and in the line of roads leading from the north to the coffee districts in the interior, introduced by the gangs of coolies who are constantly passing backwards and forwards from Madras coast, where the disease was prevalent. In the married lines of the gun Lascars at Colombo, two women were attacked, and died. In the lines of the mounted orderlies attached to gun Lascars, one man was attacked and recovered. No Europeans among the Troops were attacked in barracks. During the prevalence of the epidemic, every sanitary precaution was observed—the men being kept, as far as possible, out of infected districts, &c. The epidemic appears not to have affected the European population generally, and only in a few instances, the mixed or burgher class.

Immediately on the occurrence of cholera in the married lines of gun Lascars at Colombo, the families were put under canvas on the parade-ground and kept there for about two months, during which time considerable improvements were effected in their rooms.

Section II.

On the Extent of Invaliding.

Forty-four non-commissioned officers and men of the European Troops were invalided from the Command during the year, being in the rate of 42·59 per 1,000 men, which is 8·39 higher than the corresponding rate of the preceding year. Thirteen men from the Command were discharged the service at Netley during the year, giving a slightly increased proportion on that of 1874.

No non-commissioned officers or men of the Asiatic Troops were discharged the service during the year.

The classes and orders of the diseases to which the invaliding of the year was due are shown in the following Table :—

Ceylon.

Strength 1,033. Diseases.	Invalids sent to England.	Invalids Discharged at Netley.
I. *General Diseases.*		
Constitutional Group	9	4
II. *Local Diseases.*		
Diseases of the—		
Nervous System	4	1
Eye	3	2
Ear	2	2
Circulatory System	2	1
Digestive "	11	..
Urinary "	1	..
Organs of Locomotion	2	1
Cellular Tissue	2	..
III. *Debility*	7	1
V. *Injuries.*		
Accidental	1	1
Total	44	13
Ratio per 1,000 of Mean Strength .. .. 1875 ..	42·59	12·68
Ratio per 1,000 of Mean Strength 1865-74	40·82	18·42

Section III.

Mean Daily Sick.

The average number of non-commissioned officers and men (European Troops) constantly sick in Ceylon during the year, was 47·63.

The usual information, calculated from this number, is given in the following Table :—

	1875.	1865-74.
Ratio per 1,000 of Strength constantly sick	46·11	54·18
	days.	days.
Average sick time to each Soldier	16·83	19·77
Average duration of cases of Sickness ..	21·57	16·75

As compared with those of the preceding year, all the results in the present are unfavourable ; the number of men always in hospital is in the rate of 9·44 per 1,000 greater ; the average sick time was 3·44 days more, and the average duration of each case of sickness was 5·52 days, or one-fourth longer.

Ceylon.

Section IV.

On the Influence of Age on Mortality.

The influence of age, in quinquennial periods, on the mortality of the Troops in the Ceylon Command in the year, is shown in the following Table :—

Corps.	Under 20.		20 and under 25.		25 and under 30.		30 and under 35.		35 and under 40.		30 and upwards.	
	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.	Strength.	Died.
Royal Artillery	4	..	65	4	58	2	31	1	27	..	9	..
57th Foot	60	..	485	1	178	1	79	1	60	1	12	3
Total	64	..	550	5	236	3	110	2	87	1	21	3
Rate per 1,000 of Mean Strength 1875 ..	..		9·09		12·71		18·18		11·50		142·86	
Rate per 1,000 of Mean Strength 1864–73	5·79		15·89		28·81		26·50		50·25		173·91	

XI.—ON THE HEALTH OF THE TROOPS SERVING IN CHINA, AND THE STRAITS SETTLEMENTS.

Section I.

Sickness and Mortality of Troops in China, and the Straits Settlements.

STATISTICAL REPORT.

1. European Troops.

China and Straits Settlements.

The White Troops serving in this Command had an average annual strength of 1,861 non-commissioned officers and men, amongst whom the admissions into hospital were 1,779, being in the rate of 955·7 per 1,000 of the strength. The deaths in the Command, and those which occurred amongst invalids on the passage home, or after arrival, were 26; being in the rate of 13·97 per 1,000. The average number of constantly sick was 74·90, being in the rate of 40·28 per 1,000. Compared with the preceding year, the admission rate is 216·1, and the daily sick rate is 3·53 per 1,000 men lower, but the death rate is 4·20 per 1,000 higher.

The proportions in which the two divisions of the Command contributed to these results are shown in the following Table :—

Stations.	Average Annual Strength.	Admitted.	Died.	Invalided.	Average number of constantly sick.	Ratio per 1,000 of Strength.				Average sick time to each soldier.	Average duration of each case of sickness.
						Admitted.	Died.	Invalided.	Constantly Sick.		
										Days.	Days.
Hong Kong	953	660	9	26	27·90	692·5	9·44	27·28	29·28	10·68	15·43
Straits Settlements* ...	908	1,119	17	53	47	1232·4	18·72	58·37	51·76	18·89	15·33

As regards the Hong Kong Division, the results of sickness compare very favourably with those of the preceding year. Lower rates are shown in every particular, except in the average duration of cases of sickness, which, in the present year, was a little longer. The admission rate is 357·1 per 1,000, or more than one-third lower; the death rate is 2·14 per 1,000 lower; the

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* The Statistics of the Straits Settlements Division of the Command have been compiled from the Monthly Returns of Sick.

China and Straits Settlements.

invaliding rate is 9·64, and that of constantly sick is 4·58 per 1,000 lower. The decreased prevalence of disease occurs in nearly every group, but it is greatest in those of *fevers, diseases of the respiratory, and of the digestive systems*, in *debility*, and in *accidental injuries.*

The admission rate for the Straits Settlements portion of the Command, shows a reduction of 69·3 per 1,000 men, but the death rate is considerably more than double that of the preceding year. Both of these results are probably referable to the circumstance that some of the troops there, were employed on field service during a part of the year; the effect of this would be to lessen the recorded prevalence of disease and at the same time, its intensity would be increased, and would be expressed by a higher death rate.

The troops stationed in the Command during the year, and certain of the results of sickness in the individual corps, are shown in the following Table :—

Corps.	Completed years of Service in the Command.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average daily sick.	Ratio per 1,000 of Strength. Admitted.	Ratio per 1,000 of Strength. Died.	Ratio per 1,000 of Strength. Invalided.	Ratio per 1,000 of Strength. Daily sick.	Average sick time to each soldier. Days.	Average duration of each case of sickness. Days.	Stations.
Royal Artillery ...	11	181	174	8	6	6·13	961·3	44·20	33·15	33·87	12·36	12·86	Hong Kong and Straits Settlements, 12 months.
„ Engineers ...	...	23	19	1	2	1·72	826·1	43·48	86·96	74·78	27·29	33·04	Hong Kong, 12.
1 Bn. 10th Foot ...	3	784	963	11	46	43·12	1228·3	14·03	60·00	55·00	20·07	16·34	Singapore, 12; dets. at Penang, Malacca, and on field service.
„ 80th „ ...	3	837	597	6	23	23·60	713·3	7·17	27·48	28·19	10·29	14·43	Hong Kong, 12; det. at Straits Settlements, 1½.
Army Hospital Corps and Garrison Staff ...	...	36	6	...	...	·33	166·6	...	...	9·17	3·34	20·07	Hong Kong and Straits Settlements, 12.

The admissions and deaths from diseases, in the various classes and orders, are shown in the following Table :—

China and Straits Settlements.

Order.	Strength	1,861.				Ratio per 1,000 of Mean Strength.			
			Died.			1875.		1869–74.	
	Diseases.	Admitted.	In the Command.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group ..	377	2	..	2	202·6	1·08	526·9	2·23
2	Constitutional Group	189	2	2	4	101·6	2·15	130·0	2·58
	II. *Local Diseases.*								
	Diseases of the—								
1	Nervous System ..	24	2	..	2	12·9	1·07	20·1	1·29
2	Eye	46	..	..	..	24·7	..	20·4	..
3	Ear	4	..	..	..	2·1	..	15·6	..
4	Nose	..	..	..	..	..	..	·6	..
5	Circulatory System ..	36	1	1	2	19·3	1·07	23·4	1·53
6	Absorbent „ ..	49	..	..	..	26·3	..	16·0	..
8	Respiratory „ ..	61	..	1	1	32·8	·54	57·0	1·06
9	Digestive „ ..	395	7	4	11	212·2	5·91	285·1	2·58
10	Urinary „ ..	100	..	..	..	53·7	..	95·6	·23
11	Generative „ ..	37	..	..	..	19·9	..	22·6	..
12	Organs of Locomotion	12	..	..	..	6·4	..	5·0	·12
13	Cellular Tissue ..	37	..	..	..	19·9	..	31·0	..
14	Cutaneous System ..	174	..	..	..	93·5	..	101·5	..
	III. *Conditions, &c.*								
	Debility	35	..	..	..	18·8	..	24·3	·12
	IV. *Poisons* ..	18	1	..	1	9·7	·54	14·8	1·29
	V. *Injuries.*								
1	Battle	20	2	..	2	10·7	1·07	..	..
2	Accidental	162	1	..	1	87·0	·54	115·9	·82
3	Homicidal	..	..	..	..	..	..	·1	·23
4	Self-inflicted	2	..	..	..	1·1	..	·2	·12
	VI. *Surgical Operations*	..	..	..	..	..	..	·6	..
	No appreciable Disease	1	..	..	..	·5	..	2·5	..
	Total.. ..	1,779	18	8	26	955·7	13·97	1509·2	14·20
	Average of 10 years, 1865–74 ..	..	..	..	..	1703·6	29·92	..	..

General Diseases.—The rate of admissions is lower than that of the preceding year by 115·2 per 1,000 men. Nearly the whole of the reduced prevalence is in diseases of the *febrile group.* In diseases of the *constitutional group,* the rate of admissions is lower by 14·5 per 1,000 men only. The rate of mortality for the whole class is lower than that of 1874 by ·65 per 1,000 men, the whole of the reduction being in the febrile group, the rate of which is only one-fifth of that of the preceding year.

The admissions and deaths, from the principal diseases in this class, are shown in the following Table:—

Strength, 1,861			Ratio per 1,000 of Mean Strength.			
			1875.		1869–74.	
General Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile—						
Eruptive Fevers	..	..	..	..	1·9	..
Continued „	96	..	51·6	..	143·4	1·76
Paroxysmal „	276	1	148·3	·54	376·8	·35
Cholera	2	1	1·1	·54	·1	·12
Influenza	..	..	..	..	2·9	..
Erysipelas	3	..	1·6	..	1·6	..
Other diseases of this group	..	..	..	..	·2	..
Total	377	2	202·6	1·08	526·9	2·23
Constitutional—						
Rheumatism	70	..	37·6	..	39·7	·12
Syphilis	101	..	54·3	..	77·3	·23
Scrofula, Phthisis, &c.	15	4	8·1	2·14	9·4	1·88
Scurvy and Purpura	1	..	·5	..	·2	..
Anæmia	1	..	·5	..	1·6	..
Other diseases of this group	1	..	·5	..	1·8	·35
Total	189	4	101·5	2·14	130·0	2·58

No admission from any form of *eruptive fever* took place during the year.

Continued Fevers.—The rate of admissions is 107·3 per 1,000 men lower than that of the preceding year. The whole of the reduced prevalence of fevers of this kind was in the Hong Kong Division of the Command. No attack of continued fever was fatal.

Paroxysmal Fevers.—The rate of admissions for fevers of this nature is 11· per 1,000 men higher than that of the preceding year. The death was due to remittent fever. The following remarks respecting paroxysmal fevers occur in the report of the Medical Officer of the Station Hospital of Hong Kong:—"By far the greatest number of these (fevers) were "really fevers of malarial origin, and, almost without exception, of the "tertian type, having more or less distinct intermissions, * * * the tendency to relapse was well marked; the convalescence from each attack was "rapid, but after repeated relapses, well-marked anæmia followed, and with it "the characteristic sallow complexion (melasma), but there was very little "emaciation. * * * It must be admitted that a number of admissions— "especially those occurring during the hot season, are included under the head "of ague—in which a febrile condition had been followed by other influences, "such as those of heat, or of excesses, or of both combined; but it was "impossible to be satisfied, in every instance, that the men had really gone "through the different stages of ague. * * * In the cold season, these "sources of error were to a great extent eliminated, and the admissions "returned as of ague during it, were really such."

Cholera.—The two admissions for this disease took place in the Straits Settlements.

Rheumatism.—The rate of admissions is 9·1 per 1,000 men lower than that of 1874.

Syphilis.—The rate of admissions slightly exceeds that of the preceding year; but the increase is considerable for the Hong Kong portion of the Command only.

LOCAL DISEASES.—The rate of admissions is less than that of the preceding

China and Straits Settlements.

year by 4·4 per 1,000 men, but the mortality from diseases of this group was higher. Both of the deaths were due to apoplexy.

Diseases of the Eye.—The rate of admissions exceeds that of the preceding year by 7·4 per 1,000 men. Nearly the whole of the admissions were for conjunctivitis, and most of them occurred amongst the troops in the Straits Settlements portion of the Command.

Diseases of the Circulatory System, are in a lower rate of prevalence than that of 1874. More than half of the admissions were on account of palpitation.

Diseases of the Respiratory System.—The rate of admissions is 53·2 per 1,000 men lower than that of the preceding year. The reduction occurs in nearly equal proportions in both portions of the Command.

Diseases of the Digestive System.—With a small reduction in the rate of prevalence of diseases of this order, compared with that of the preceding year, an increase of 4·28 per 1,000 men in the rate of mortality is associated.

Diseases of the Urinary System.—The rate of admissions shows a decrease of 10·9 per 1,000 men on that of 1874.

POISONS.—The rates of admissions, and of deaths, from diseases in this class, are both lower than those of the preceding year.

INJURIES.—Twenty admissions for injuries received in battle (in two of which death followed) are returned from the Straits Settlements portion of the Command. *Accidental.*—The rate of admissions is 19·9 per 1,000 men lower than that of the preceding year. The death returned was due to drowning.

2. ASIATIC TROOPS.

The Asiatic Troops in the Command were stationed at Hong Kong, and consisted of a company of Gun Lascars, of an average annual strength of 66 non-commissioned officers and men, nearly all of whom were natives of Madras, and consequently, as regards climate, were foreigners in Hong Kong. The admissions into hospital were 56 ; the deaths 2 ; the number of constantly sick was 1·68. No men were invalided during the year. The proportions given by the numbers stated above are, for admissions, 848·5 ; for deaths, 30·30 ; and, for constantly sick, 25·45 per 1,000 of the strength, respectively.

The results differ from those of the preceding year, in showing a lower admission, and a higher death rate, features of but little significance in connexion with the trifling strength of the force. Ague caused one-fifth, syphilis and gonorrhœa together, nearly one-half of the whole admissions. Of the deaths, one was due to hepatitis, the other, to degeneration of the heart.

Officers.

China only.

The average annual strength of the officers (in the Hong Kong portion of the Command only) was 37, amongst whom there were only 17 cases of sickness, more of which was due to ague than to any other disease. There were no deaths.

Women.

The average annual strength of the wives of the non-commissioned officers and men (in the Hong Kong portion of the Command only) was 73, amongst whom there were 40 cases of illness, and one death. Ague, dysentery, diarrhœa, and debility, caused most of the sickness. The death was due to remittent fever.

Children.

The average annual strength of the children of the non-commissioned officers and men (in the Hong Kong portion of the Command only) was 121 amongst whom 27 cases of illness only are returned. There were five deaths (being in the rate of 41·32 per 1,000 of the strength), due to anæmia (1), to diarrhœa (1), to convulsions (3). *China.*

SANITARY REPORT.

Deputy Surgeon-General Moorhead reports—"The following improvements and additions to the sanitary arrangements in the barracks, grounds, &c., at this station have been carried out or commenced during the past year, viz.:—

Murray Barracks.—The drainage of these barracks has been entirely reconstructed and improved, and the surface channels relaid.

Wellington Barracks.—The reconstruction of the drainage and latrines in these barracks has been commenced, and will be completed about April 1876.

Garrison Hospital, Wellington Barracks.—The roof ventilation has been improved, and inlet and extract ducts to the wards have been provided.

North Barracks.—The channel courses in these barracks have been relaid throughout, and ventilators to the roof of the building have been fixed. A latrine and wash-house for the women are in course of erection, and will be completed shortly.

Commissariat Buildings.—The re-arrangement of the existing latrines and construction of new ones for Europeans have been commenced, but cannot be completed until the stores arrive from England.

Kowloon.—The re-construction of the cookhouse, soldiers' latrines, women's latrines, and bath and ablution accommodation, was commenced late last year, and has since been completed. A well for supplying the Troops at Kowloon with water has been sunk.

Hospital Ship "Meeanee."—This ship, which is anchored in the middle of the harbour, and in which the whole of the sick of the European Troops in the garrison are treated, had been re-decked, newly coppered, and painted, re-roofed, the masts removed, the water tanks put in order, a store for hospital clothing formed, and sundry other improvements carried out. Proper boilers for the supply of hot water are much needed, and I understand that these have been included in the next year's estimates. A shower-bath is also a great desideratum, and this has been represented to the Commanding Royal Engineer who superintends the alterations and improvements in the vessel. Two ship-keepers, petty officers of the Royal Navy, have been sent out from England for the purpose of looking after the safety of the vessel—a step which is very necessary, especially during the typhoon season. They are provided with comfortable cabins on board, and supplied with a free ration. There are advantages and disadvantages connected with the arrangement of treating the sick on board ship. Among the former it may be stated that the ship and her surrounding are more favourably situated in a sanitary point of view, and the air at all times feels cooler and purer than in Victoria, where the barracks and garrison hospital are; indeed, the foul odours in the town are proverbial, and, until the scheme contemplated for the new water-works is carried out, it is to be feared that the drainage of Hong Kong will remain in its present very defective and objectionable condition. Among the disadvantages of having the hospital afloat and in the middle of the harbour, may be mentioned the risk to the vessel during typhoons; the possible, or even probable collisions with other vessels at such times (and indeed during ordinary weather this may occur); the discomfort to the sick proceeding in open boats at all seasons of the year; and the very considerable delay in reaching the vessel, or getting back to shore, at certain seasons of the year. As a precautionary measure, during rough or stormy weather, the sick have to be detained sometimes for a day or two in the Casualty Ward in the Garrison Hospital, at Wellington Barracks, before sending them to the "Meeanee," and a similar arrangement takes place in respect to discharging men from board ship, when there is a risk of sending them on shore. The subject has already been brought to the notice of the proper authorities. A hospital for women and children is very much wanted at Hong Kong, as there is usually a large amount of sickness among this class of patients. The cubic space and

China.

superficial area in barracks have been considered ample. The lighting of the barrack-rooms might be improved by the issue of a more suitable description of lamp, with the requisite quantity of oil; or, better still, by the introduction of gas, now so generally used in Hong Kong.

Rations.—There has been no alteration in the scale of diet during the year, with the exception of the issue of a salt ration of beef or pork once a week for a period of about six weeks, and this was done on the recommendation of the Medical Officers, with a view of affording some little variety in lieu of a monotonous diet of fresh beef daily during the year round. The issue of the salt ration was discontinued by order from England. Its quality was occasionally very inferior, and this is in accordance with previous experience in this garrison, when salt meat was periodically issued in former years, but discontinued in 1866. Unless the meat is of the best quality—such as I have seen on board ship in the harbour of Hong Kong,—it is no doubt safer to adhere to the present ration of fresh beef. I am told that there is a plentiful supply of good fresh mutton procurable at Shanghai, and if mutton could be occasionally issued instead of beef, it would be a great boon to the soldier.

Water.—The water has been abundant and of good quality.

Clothing.—The clothing has been suitable to the climate and the changes of the seasons. In cold weather men are allowed to wear their great coats on guard.

Duties.—Up to the 11th November, when 300 men of the 80th Regiment proceeded to the Straits Settlement, owing to the outbreak of hostlities in the Malay Peninsula, the men had, on an average, 6 and 7 nights in bed, and their other duties were not of such a nature as to prove in any respect injurious to health. Since the above date, owing to the reduction in the strength of the garrison, the number of nights in bed has been reduced to 5 and 6; with the present strength, it seems to be impossible to give them more: but it is to be hoped, and it is believed, that during the cool season of the year such a temporary arrangement will not in any respect prove presudicial to health.

Sickness and Mortality.—The satisfactory results as regards the health of the garrison are no doubt attributable, in a considerable degree, to improved sanitary arrangements, including a more perfect system of drainage, progressing from year to year; clothing suitable to the climate and changes of the seasons; a liberal amount of cubic space and superficial area to the men in barrack-rooms; the proportion of nights in bed being large compared with those on duty, thus avoiding exposure to chills, foul air, and other deleterious influences; also to precautions being taken to avoid, as far as possible, disturbing the earth in the vicinity of the barracks.

Venereal Disease.—The Contagious Diseases Act is in force at Hong Kong, and has an excellent effect in keeping the prevalence of these diseases in check. Were such an Act not in force in this colony, the consequences would be lamentable—the population being so dense, and the morality of the Chinese at such a low ebb."

Section II.

On the Extent of Invaliding.

China and Straits Settlements.

In the following Table, the statistics of the invaliding of the Command during the year, are shown :—

	White Troops	
Mean Strength	1,861	
	Sent as Invalids to England.	Discharged as Invalids in England.
Rheumatism	5	1
Syphilis	3	..
Phthisis Pulmonalis	5	8
Scrofula	..	1
Meningitis	1	..
Paralysis	1	2
Conjunctivitis	4	..
Impaired Vision	1	..
Valve Disease, and Hypertrophy of Heart	7	1
Palpitation	3	2
Inflammation of Glands	2	..
Bronchitis..	5	1
Pneumonia	1	..
Dyspepsia	2	..
Dysentery	2	..
Diarrhœa	3	..
Hepatitis	4	1
Hernia	5	3
Hæmorrhoids	..	1
Fistula in Ano	1	..
Bright's Disease	1	..
Stricture of Urethra	1	..
Orchitis	1	1
Malposition of Testicle	..	1
Lumbar Abscess	..	1
Ulcer	3	..
Eczema	1	..
Debility	15	1
Gunshot Wound	1	..
Fracture	..	1
Surgical Operation	1	1
Total	79	27
Annual Ratio per 1,000 of Mean Strength .. 1875 ..	42·45	14·56
Annual Ratio per 1,000 of Mean Strength .. 1865–74.	72·49	31·07

Section III.

Mean Daily Sick.

The average number constantly sick during the year amongst the European Troops in the Command was 74·90, and among the Asiatic Troops 1·68.

In the following Table the usual information, calculated from these numbers, is given :—

China and Straits Settlements.

		European Troops.	Asiatic Troops.
Ratio per 1,000 of Strength constantly Sick	1875 ..	40·28	23·45
	1865–74	66·28	44·33
		days.	days.
Average Sick time to each Soldier	1875 ..	14·69	9·29
	1865–74	24·19	16·00
Average duration of Cases	1875 ..	15·54	10·95
	1865–74	14·24	14·40

Section IV.

Influence of Age on Mortality.

China only.

In the following Table, the ages of the White Troops (in the Hong Kong portion of the Command only), in quinquennial periods, and the deaths at each age, are shewn:—

Corps.		Under 20 Years.		20 and under 25.		25 and under 30.		30 and under 35.		35 and under 40.		40 and upwards.	
		Average Strength.	Died.	Average Strength.	Died.	Average Strength.	Died.	Average Strength.	Died.	Average Strength.	Died.	Average Strength.	Died.
Royal Artillery		1	...	31	...	31	1	13	1	16	...	4	...
80th Foot...		5	...	449	2	202	...	65	3	80	1	29	...
Total		6	...	480	2	233	1	78	4	96	1	33	...
Annual ratio per 1,000 of Strength	1875	...		4·17		4·29		51·28		10·42		...	
	7 years	3·12		10·92		26·37		26·43		39·78		48·54	

XII.—ON THE HEALTH OF THE TROOPS SERVING IN THE FIJI ISLANDS.

Section I.

Sickness and Mortality.

STATISTICAL REPORT.

Fiji Islands.

The station of Levuka was occupied for the first time by British Troops, on the arrival of a Company of Royal Engineers, on the 23rd of September. The actual strength of the Company was 62 non-commissioned officers and men; reduced to an annual average, this gives a strength of 17; the admissions into hospital were 33, being in the rate of 1941·2 per 1,000 of the average annual strength; no non-commissioned officers or men died or were invalided during the year. The average daily sick in hospital was 2·41 men.

Diseases of the Febrile Group, caused only 4 admissions, 1 for *febricula*, the other for *influenza.*

Diseases of the Digestive System, caused 12 admissions, being more than a third of the whole; the greater comparative prevalence of diseases of this order is in correspondence with the tropical climate of the station; 1 of these admissions was due to tonsillitis, 8 to dyspepsia, 2 to diarrhœa, and 1 to hepatitis.

XIII.—ON THE HEALTH OF THE TROOPS SERVING IN INDIA.

Section I.

Sickness and Mortality.

India. The average annual strength of the non-commissioned officers and men of the European troops serving in the Indian Commands in 1875 was 59,344; the admissions into hospital were 77,373; the deaths were 1,099, of which 1,030 occurred in India, and 69 (being those of invalids) took place on the passage or after arrival in England. The average number of constantly sick was 3326·91. The rates from these numbers are—for admissions, 1303·8; for deaths, 18·52; and for constantly sick, 56·06 per 1,000 of the strength. The relative proportions for the chief results of sickness in each of the three Commands, are shown in the following Table:—

	Average Strength.	Admissions into Hospital.	Deaths.			Invalided.	Constantly sick.	Ratio per 1,000 of Mean Strength.				Average sick time to each soldier.	Average duration of each case of sickness.
			In India.	Of Invalids.	Total.			Admitted.	Died.	Invalided.	Constantly sick.		
												Days	Days
Bengal	37,769	51,118	653	41	694	1,523	2123·69	1353·4	18·38	40·32	56·23	20·52	15·6
Madras	11,233	12,067	163	15	178	593	619·25	1074·2	15·83	52·79	55·13	20·12	18·73
Bombay	10,342	14,188	214	13	227	628	583·96	1371·8	21·95	60·72	56·46	20·61	15·02
Total ...	59,344	77,373	1,030	69	1,099	2,744	3326·91	1303·8	18·52	46·24	56·06	20·46	15·69

I.—Bengal.

STATISTICAL REPORT.

Bengal. The average annual strength of non-commissioned officers and men in the Command was 37,769; the admissions into hospital were 51,118; the deaths, including those of invalids who died at sea or after arrival in England, were 694; the average number of constantly sick was 2123·7. The rate of admissions is therefore 1353·4, that of deaths is 18·38, and that of constantly sick is 56·23 per 1,000 of the average annual strength. The rate of admissions is 63·3, and that of constantly sick is ·96 per 1,000 men lower than the corresponding rate of the preceding year, but the rate of mortality is 3·15 per 1,000 men higher.

Bengal. The admissions and deaths in the various classes and orders of diseases are shown in the following Table :—

Orders.	Diseases.	Strength, 37,769.				Ratio per 1,000 of Mean Strength.			
			Deaths.			1875.		1869–74.	
		Admitted.	In the Command.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
	General Diseases.								
1	Febrile Group ..	19,057	244	1	245	504·7	6·49	645·9	8·77
2	Constitutional Group	6,109	59	18	77	161·8	2·04	159·1	2·23
	Local Diseases.								
	Diseases of the—								
1	Nervous System ..	797	93	..	93	21·1	2·46	20·1	2·35
2	Eye	766	..	..	..	20·3	..	24·0	..
3	Ear	280	..	..	..	7·4	..	7·3	..
4	Nose	27	..	..	..	·7	..	·6	·01
5	Circulatory System ..	857	33	4	37	22·7	·98	19·6	1·65
6	Absorbent " ..	545	..	..	..	14·4	..	15·3	..
7	Ductless Glands ..	4	1	..	1	·1	·03	·1	·01
8	Respiratory System ..	2,288	36	5	41	60·6	1·09	57·3	1·24
9	Digestive " ..	8,409	110	9	119	222·6	3·15	250·5	5·82
10	Urinary " ..	3,939	10	2	12	104·3	·32	103·2	·35
11	Generative " ..	546	..	..	..	14·5	..	15·2	..
12	Organs of Locomotion	195	4	..	4	5·2	·10	5·1	·04
13	Cellular Tissue ..	470	1	..	1	12·4	·03	13·1	·03
14	Cutaneous System ..	2,470	..	..	..	65·4	..	67·3	·01
	III. *Conditions, &c.*								
	Debility	757	1	1	2	20·0	·05	18·1	·09
	IV. *Poisons* ..	119	7	..	7	3·1	·19	4·6	·31
	V. *Injuries.*								
2	Accidental	3,438	33	1	34	91·0	·90	85·7	·85
3	Homicidal	1	2	..	2	·1	·05	·4	·06
4	Self-inflicted	4	17	..	17		·45		·59
6	Judicial	..	..	..	..	..	..		·02
	VI. *Surgical Operations*	13	2	..	2	·3	·05	·3	·01
	Not specified ..	..	..	..	..	..	..	·2	·01
	No appreciable disease	27	..	..	..	·7	..	·9	..
	Total	51,118	653	41	694	1353·4	18·38	1513·9	24·45
	Average of 10 years 1865–74.. ..	..	..	..	..	1487·4	25·32	..	..

General Diseases.—Compared with 1874 there is a reduction of 45·7 per 1,000 men in the rate of admissions for diseases in this class, the whole of which occurs in the *febrile group* of diseases, for those in the *constitutional group,* the rate is rather higher. The rate of mortality for the class is higher than in the preceding year by 3·12 ; this is nearly the proportion by which the mortality from all diseases exceeds the rate for 1874. Both groups of the class show an increased rate of deaths, but in the instance of the constitutional group, the increase is trifling.

The admissions and deaths from the principal diseases in this class are shown in the following Table :—

Bengal.

Strength, 37,769.		Deaths.			Ratio per 1,000 of Mean Strength.			
General Diseases.	Admitted.	In Command.	Of Invalids.	Total.	1875.		1869–74.	
					Admitted.	Died.	Admitted.	Died.
Febrile—								
Eruptive Fevers	83	1	..	1	2·2	·03	2·0	·23
Continued "	4,958	74	..	74	131·3	1·96	178·3	1·99
Paroxysmal "	13,660	27	..	27	361·7	·71	454·1	1·72
Cholera	208	139	..	139	5·5	3·68	7·0	4·66
Influenza	23	..	..	..	·6	..	1·3	..
Erysipelas	116	2	..	2	3·1	·05	2·4	·09
Other Diseases	9	1	1	2	·2	·05	·8	·08
Total	19,057	244	1	245	504·6	6·48	645·9	8·77
Constitutional—								
Rheumatism	2,196	..	..	..	58·2	...	52·0	·02
Syphilis	3,455	3	..	3	91·4	·08	88·7	·12
Scrofula, Phthisis, &c. ..	313	50	17	67	8·3	1·77	10·8	1·87
Scurvy and Purpura ..	11	3	..	3	·3	·08	·6	·01
Anæmia	121	..	1	1	3·2	·03	6·2	·04
Other Diseases	13	3	..	3	·3	·08	·8	·17
Total	6,109	59	18	77	161·7	2·04	159·1	2·23

Eruptive Fevers, were less prevalent than in the preceding year, and the mortality from them is in a much lower rate. Of the admissions 9 were due to small-pox, one case of which ended fatally, 2 were due to chicken-pox, and 29 to measles. The other admissions in this group of fevers (43) were for dengue, all the attacks of which occurred in the men of one particular battery of Royal Artillery.

Continued Fevers.—The rate of admissions for fevers of this kind is 50·4, and that of deaths is ·18 per 1,000 men lower than the corresponding rate of 1874.

Paroxysmal Fevers.—The rate of admissions is 5·9, and that of deaths is ·16 per 1,000 men lower than the corresponding rate of the preceding year.

Cholera.—After the severe epidemic of 1872 (in which the admissions were in the rate of 16·, and the deaths in that of 10·51 per 1,000 men) the prevalence of this disease diminished, until in 1874 only 9 admissions from it occurred (amongst the troops) in the whole Command. In the present year cholera again took on epidemic activity, affected many stations in the Command, and caused a great loss of life, though happily a smaller one than that which occurred in the preceding epidemic.

Erysipelas.—The prevalence of this disease was less than that of the preceding year, and the rate of mortality from it was only half as high.

Rheumatism.—The prevalence of rheumatism was still greater than in 1874, in which year the rate of admissions exceeded the average.

Syphilis.—The rate of admissions exceeds that of the preceding year by 3· per 1,000, and the rate of mortality from it is also higher.

Scrofula, Phthisis, &c.—Compared with the results of the preceding year, the present shows a fractionally lower admission-rate, associated with a considerably higher death-rate.

LOCAL DISEASES.—*Diseases of the Nervous System*, were considerably more prevalent, and were much more fatal than in 1874, the admission-rate being 2·1, and the death-rate ·90 per 1,000 men higher than the corresponding rate of that year. The excess of prevalence is mainly shown in the more numerous

Bengal.

admissions for sunstroke, and for neuralgia; the excess of mortality in the present year is mainly due to that following sunstroke, nearly one-half of the men attacked having succumbed to it, whilst in 1874 only one-third of the attacks proved fatal.

Diseases of the Eye, are in a lower rate of prevalence than in 1874 by 2·7 per 1,000 men.

Diseases of the Circulatory System, and of the *Respiratory System*, were both less prevalent than in the preceding year, but the decrease in the rate of admissions is not considerable for either order; that of mortality shows a (relatively) large reduction (·63 per 1,000 men) in the instance of the first-named order; the death-rate for the other order of diseases is ·51 per 1,000 men higher.

Diseases of the Digestive System.—Whilst the rate of admissions for diseases of this order is only 2·9 per 1,000 men lower than that of 1874, the rate of deaths is ·80 per 1,000 men lower. This reduction occurs mainly in consequence of the generally less fatal nature of the attacks of hepatitis.

Diseases of the Urinary System, are in a rate of 5·7 per 1,000 men less than in the preceding year.

CONDITIONS, &c.—*Debility.*—The admissions exceed those in the preceding year by 1·4 per 1,000 men.

POISONS.—The rates of admissions and of deaths differ only fractionally from those of the preceding year.

INJURIES.—*Accidental.*—The rate of admissions for accidental injuries is nearly the same as that of 1874. The proportion of deaths following on injuries is ·08 per 1,000 men lower. Of the 34 deaths due to accidents, the specific cause was a multiple injury in 2 instances, drowning in 18, impaction of a foreign body in the air passages in 2, injury of the brain or of the spine in 7, gunshot wounds in 3, and incised wounds in 2. One of the *homicidal* deaths was that of a man murdered by the natives of a hostile tribe, the other was caused by a fracture of the skull. 15 of the *self-inflicted* deaths were by gunshot, 1 by drowning, and 1 by cut-throat.

The following Table, taken from the report of the Principal Medical Officer, shows the admissions and deaths which took place at the principal stations of the Command during the year:—

Stations.		Average Annual Strength.	Admitted into Hospital.	Died in India.	Ratio per 1,000 of Strength.		Annual Ratio per 1,000. 1865–74.	
					Admitted.	Died.	Admitted.	Died.
Presidency	Calcutta ..	967	794	6	821·	6·20	1384·4	21·17
	Dum-Dum ..	537	417	9	776·	16·75		
	Barrackpore ..	444	792	8	1787·	18·05	1839·8	31·32
	Hazaribagh ..	111	75	..	675·	..	1277·0	18·34
	Darjeeling ..	76	41	..	539·	..	869·6	6·21
Allahabad	Allahabad ..	1,035	1,285	18	1241·	17·39	1758·1	42·85
	Dinapore ..	938	1,229	12	1310·	12·79	1543·9	24·18
	Benares ..	510	714	13	1402·	25·54	1669·1	25·61
	Chunar ..	67	111	..	1656·	..	2334·2	36·84
	Cawnpore ..	810	1,028	16	1269·	19·75	1631·9	23·41
Oudh ..	Lucknow ..	2,338	2,634	51	1126·	21·81	1268·6	24·87
	Fyzabad ..	972	1,342	18	1380·	18·51	1173·8	24·98
	Sitapur ..	584	660	7	1130·	11·98	1113·3	17·90
Rohilcund	Bareilly ..	938	934	8	995·	8·52	998·0	11·13
	Moradabad ..	220	231	5	1050·	22·72	1018·2	14·91
	Shahjahanpur ..	538	448	11	840·	20·63	1332·0	19·95
	Ranikhet ..	1,022	982	9	960·	8·80	877·9	12·56

Stations.		Average Annual Strength.	Admitted into Hospital.	Died in India.	Ratio per 1,000 of Strength.		Annual Ratio per 1,000. 1865-74.	
					Admitted.	Died.	Admitted.	Died.
Saugor ..	Jubbulpore ..	640	654	5	1021·	7·81	1789·7	31·08
	Saugor	371	449	2	1210·	5·39	2038·3	31·77
	Nowgong.. ..	316	452	6	1430·	18·98	1679·0	25·03
Gwalior	Morar	1,201	1,322	31	1100·	25·81	1916·9	30·10
	Fortress Gwalior	336	478	11	1422·	32·73	1306·8	23·70
	Jhansi.. ..	376	777	3	2066·	7·97	2512·1	18·90
Meerut ..	Meerut.. ..	1,458	2,599	27	1782·	18·51	1759·6	33·93
	Fatehgarh ..	264	297	3	1125·	11·36	1340·3	18·69
	Agra	1,114	1,185	11	1063·	9·87	1326·5	19·17
	Muttra ..	378	309	10	817·	26·44	1134·5	16·11
	Delhi	561	991	16	1766·	28·52	1961·4	30·10
	Roorkee ..	407	409	13	1004·	31·94	1392·0	18·44
	Chakrata ..	799	784	2	981·	2·54	760·7	10·86
Sirhind ..	Umballa ..	1,285	1,524	32	1186·	24·90	1431·1	16·27
	Jullundur ..	781	834	16	1067·	20·48	1482·2	20·03
	Subathu ..	445	402	7	903·	15·73	1114·1	15·80
	Dagshai ..	757	1,043	6	1377·	7·92	954·9	11·14
	Solun	153	127	2	830·	13·71	1844·8	22·99
	Jutogh.. ..	75	72	1	960·	13·33	781·4	16·39
Lahore ..	Meen Meer ..	1,081	2,674	39	2473·	36·07	2235·9	39·85
	Fort Lahore ..	128	230	2	1796·	15·62	..	..
	Amritsar Cantonments	175	390	10	2228·	5·71	1771·1	38·16
	Ft. Govindgarh	148	330	2	2229·	13·51	1441·7	16·51
	Ferozepore ..	1,095	1,028	19	938·	17·35	1360·6	16·62
	Mooltan ..	828	1,542	9	1862·	10·86	1341·4	19·17
	Fort Kangra ..	41	86	..	2097·	..	1082·8	18·18
	Bhagsu	96	102	4	1062·	41·66	849·5	..
	Banikhet ..	58	57	..	982·	..	1095·6	19·64
Rawal Pindi	Rawal Pindi ..	1,640	1,847	13	1126·	7·92	1489·6	14·30
	Sialkot ..	1,052	1,588	25	1509·	23·76	1336·9	11·59
	Campbellpore..	130	124	1	953·	7·69	1367·2	15·65
	Attock.. ..	171	366	4	2140·	23·39	2041·0	21·36
	Dera Ismail Khan	99	243	2	2454·	20·28	1630·5	15·06
	Khyra Gully ..	52	46	..	884·	..	1243·0	9·35
	Kalabagh ..	106	107	..	1009·	..	2062·8	8·97
	Bara Gully ..	102	76	1	745·	9·80	1178·6	25·51
	Chungla Gully	98	104	2	1061·	20·40	1069·0	9·85
	Kooldunnah ..	156	98	1	628·	6·41	1003·1	6·27
	Camp Ghareeal	141	69	1	489·	7·09	633·4	..
Peshawar..	Peshawar ..	1,623	5,234	24	3224·	14·72	2623·3	43·63
	Nowshera ..	459	772	4	1681·	8·71	2285·6	20·00
	Cherat.. ..	450	669	8	1486·	17·77	1431·8	21·20
Troops at Camps of Exercise..		606	551	2	909·	3·30	..	..
,, on March, detached, &c.		1,451	1,089	9	750·	6·19	..	..
,, treated at Convalescent Depôts and other Hospitals ..		1,964	3,271	76	1665·	38·69	..	..

Bengal.

As in 1874, the highest admission-rate is that of the station of Peshawar; it exceeds the average of the whole Command by 1819· and its rate of the preceding year by 304· per 1,000 men; fevers, both of the continued, and of the paroxysmal groups, but chiefly those of the latter, caused this excessive rate of sickness. In one regiment only, the admissions for fevers of all kinds were 2,408 in number, of which 1,668 were for ague, or for remittent fever. Respecting paroxysmal fevers the medical officer of the regiment writes:—"These forms "of fever prevailed epidemically during the last four months of the year, and "they reduced the regiment to such a state of inefficiency that all duties, with "the exception of the necessary guards, had to be suspended from the 1st of "September to the 31st of December. 747 men gave 1,659 admissions into "hospital, but this by no means shows the actual amount of sickness and in-"efficiency caused by these fevers, as, in addition to a large attending list, 120 "convalescents were sent at different times to Cherat, and 140 to a convalescent "camp in the district." The regiment was in its first year of service at Peshawar.

The prevalence of paroxysmal fevers in another corps quartered there, and in its second year of residence, was only about half as great. Next to Peshawar, the highest admission-rate is that of Meen Meer, which is 363. per 1,000 men in excess of its rate in the preceding year. At this station, as at that just spoken of, the great prevalence of paroxysmal fevers mainly caused the high admission-rate. The admissions for ague and for remittent fever in one regiment were in the proportion of 1502·5 per 1,000 of the strength, these diseases prevailed chiefly in the last quarter of the year. Excluding stations which had a smaller annual strength than 100 men, the lowest admission-rate is that for Kooldunna—628· per 1,000 men. Restricting the comparison to stations having a considerable strength (nearly that of a whole regiment) the lowest rates of prevalence of disease are those for Dum-Dum, 776·; Muttra, 817·; and for Calcutta 821· per 1,000 men. In addition to the stations just mentioned, the admissions at Ghareeal Camp, Bara Gully, Ferozepore, and at Campbellpore, were fewer than the average annual strength. The rates of mortality at the various stations, being so much influenced by the amount of invaliding which took place, do not afford satisfactory indications of the comparative intensity of disease at them from year to year; but by extending the period of observation to ten years, as is done in the Table, more reliable evidence is obtained. For this period it will be seen that the healthiness of Bareilly, exceeded that of any station in the plains, and compared favourably with that of several of the hill stations.

The admissions and deaths in the different classes and orders of diseases are shown in the following Tables, which have been compiled from the Monthly Returns of the Command:—

Bengal.

Order.	Divisions	Presidency.		Allahabad.		Oudh.		Rohilcund.		Saugor.		Gwalior.		Meerut.		Sirhind.		Lahore.		Rawal Pindi.		Peshawar.		Troops on March.		Camp of Exercise.		Depôts.	
	Average Annual Strength ...	2,085		3,330		3,789		2,380		1,281		1,881		4,883		3,508		3,461		3,657		2,460		2,254		478		1,631	
	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*																												
1	Febrile Group	569	3	1,040	18	770	43	442	8	734	1	937	25	2,324	31	1,377	31	3,329	33	1,182	12	4,928	16	447	2	81	1	975	15
2	Constitutional ,, ...	190	2	721	5	1,032	8	368	3	14	...	232	3	696	5	625	7	600	8	486	2	276	3	315	1	92	...	382	4
	II. *Local Diseases.*																												
	Diseases of the—																												
1	Nervous System	36	2	69	11	58	6	51	3	17	2	52	6	117	12	50	5	132	22	120	14	43	7	24	2	6	...	45	...
2	Eye	24	...	69	...	82	...	83	...	32	...	59	...	112	...	55	...	51	...	81	..	49	...	34	...	11	...	22	...
3	Ear	15	...	43	...	26	...	18	...	7	...	5	...	51	...	11	...	24	...	27	...	34	...	8	...	...	...	4	...
4	Nose	1	...	1	...	...	...	2	..	3	...	1	...	...	...	3	...	13	...	4	...	1	...	...	...	...	...	...	...
5	Circulatory System	43	1	85	2	112	...	29	2	23	2	48	2	102	9	69	6	57	1	81	3	74	1	15	...	2	...	135	3
6	Absorbent ,, ...	47	...	96	...	45	...	69	...	16	...	34	...	64	...	30	...	33	...	32	...	20	...	30	...	3	...	36	...
7	Ductless Glands	...	..	...	...	1	...	...	...	...	...	...	...	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	Respiratory System	71	1	173	4	125	1	116	2	40	1	91	2	264	5	131	1	266	6	501	8	248	2	101	2	37	1	137	1
9	Digestive ,, ...	407	8	788	11	862	10	553	11	219	1	498	5	1,167	15	625	6	902	13	879	11	524	3	268	2	85	...	684	10
10	Urinary ,, ...	237	...	588	1	683	...	249	2	136	2	199	1	432	1	280	...	293	1	278	...	119	...	251	...	85	...	124	1
11	Generative ,, ...	43	...	64	...	73	...	38	...	17	...	1	...	64	...	66	...	52	...	39	...	22	...	21	...	7	...	17	...
12	Organs of Locomotion ...	10	...	15	...	30	1	15	1	3	...	5	1	40	...	7	...	17	...	17	...	8	1	10	...	4	...	32	...
13	Cellular Tissue	27	...	39	...	51	...	24	...	13	...	17	...	62	...	53	...	40	...	72	...	20	...	20	...	9	...	25	1
14	Cutaneous System	190	..	271	...	296	...	129	...	74	...	143	...	349	...	231	...	249	...	255	...	140	...	70	...	16	...	57	...
	III. *Conditions, &c.*																												
	Debility	55	...	58	...	91	...	38	...	14	...	69	...	67	...	48	...	84	...	59	...	63	...	39	...	2	...	89	...
	IV. *Poisons*	8	...	10	1	21	1	2	...	3	...	...	...	23	...	11	2	12	1	29	...	3	1	1	1	...	...	...	...
	V. *Injuries.*																												
2	Accidental	165	2	264	3	284	4	189	2	59	...	171	2	543	6	414	4	294	1	573	1	167	1	129	2	40	1	145	1
3	Homicidal	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
4	Self-inflicted	...	1	...	3	1	2	...	...	...	2	...	...	1	1	1	3	2	2	...	...	1	1	...	...	...	...	1	1
	VI. *Surgical Operations* ...	...	1	...	...	3	...	...	...	...	...	2	...	5	...	2	1	..	...	...	...	...	...	...	...	...	...	1	...
	No appreciable disease ...	12	...	3	...	2	...	2	...	...	...	...	...	2	...	...	...	...	...	3	...	1	...	...	...	...	...	6	...
	Total	2,151	22	4,397	59	4,648	77	2,417	34	1,544	11	2,584	47	6,488	86	4,089	66	6,450	88	4,718	51	6,741	37	1,783	12	480	3	2,917	37

ean Strength.

Meerut.		Sirhind.		Lahore.		Rawal Pindi.		Peshawar.		Troops on March.		Camp of Exercise.		Depôts.	
Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
475·91	6·35	392·53	8·84	951·86	9·53	323·21	3·28	2003·25	6·50	198·31	·89	169·31	2·09	604·46	9·30
142·57	1·02	178·16	2·06	[illegible]	2·31	132·90	·55	112·19	1·22	139·75	·44	192·31	...	236·83	2·48
23·96	2·45	14·25	1·42	28·14	6·36	32·81	3·83	17·48	2·84	10·65	·89	12·54	...	27·90	...
22·91	...	15·68	...	14·75	...	22·15	...	19·92	...	15·08	...	22·99	...	13·64	...
10·44	...	3·11	...	6·55	...	7·38	...	13·82	...	3·55	...	...	...	2·48	...
...	...	·86	...	3·47	...	1·09	...	·41	...	...	...	...	...	...	...
20·89	1·84	19·67	1·71	16·17	·29	22·17	·82	30·08	·41	6·65	...	4·18	...	83·69	1·86
13·11	...	8·55	...	9·53	...	8·75	...	8·13	...	13·31	...	6·27	..	22·32	...
·61	·21	...	...	...	...	...	...	...	...	...	...	...	...	...	...
54·07	1·02	37·34	·28	76·86	1·73	137·60	2·19	100·81	·81	44·81	·89	77·34	2·09	84·93	·62
238·99	5·07	178·16	1·71	260·62	3·75	240·36	3·01	213·01	1·22	118·90	·89	177·68	...	424·05	6·20
88·47	·21	79·82	...	84·66	·29	76·62	...	48·37	...	111·36	...	177·68	...	76·88	·62
13·11	...	18·81	...	15·62	...	10·66	...	8·94	...	9·32	...	14·63	...	10·54	...
8·19	...	2·60	...	4·91	...	4·65	..	3·25	·41	4·44	...	8·36	...	19·84	...
12·70	...	15·11	...	11·56	...	19·69	...	8·13	...	8·87	...	18·81	...	15·50	·62
71·47	...	65·85	...	71·91	...	69·73	...	56·91	...	31·06	...	33·45	...	35·34	...
13·72	...	13·68	...	24·27	...	16·15	...	25·61	...	17·30	...	4·18	...	55·18	...
4·71	...	3·14	·57	3·47	·29	7·93	...	1·22	·41	·44	·44	...	...	...	...
111·20	1·23	118·02	1·14	81·95	·29	156·68	·27	67·89	·41	57·23	·89	83·61	2·09	89·89	·62
...	...	...	...	...	...	...	...	...	·41	...	...	...	...	...	...
·21	·21	·28	·86	·58	·58	...	...	·41	·41	...	...	...	...	·62	·62
1·02	...	·57	·28	...	...	...	...	...	...	...	...	...	...	·62	...
·41	...	...	...	...	...	·82	...	·41	...	...	...	...	...	3·72	...
1328·69	17·61	1165·62	18·81	1863·62	25·42	1290·13	13·95	2740·24	15·05	791·03	5·33	1003·34	6·27	1808·43	22·94

GENERAL DISEASES.

Divisions	Presidency.		Allahabad.		Oudh.		Rohilcund.		Saugor.		Gwalior.		Meerut.		Sirhind.		Lahore.		Rawal Pindi.		Peshawar.		Troops on March.		Camp of Exercise.		Depôts.	
Average Strength ...	2,085		3,330		3,789		2,380		1,281		1,881		4,883		3,508		3,461		3,657		2,460		2,254		478		1,631	
General Diseases.	Admitted.	Died	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile—																												
Eruptive Fevers	...	...	48	...	1	...	...	...	...	...	2	...	11	1	2	...	2	...	4	...	2	...	2	...	...	...	1	...
Continued ,, ...	366	2	437	9	387	6	268	5	51	...	138	2	130	5	456	9	378	8	613	8	1,569	12	75	1	17	1	120	3
Paroxysmal	199	1	528	...	326	1	158	1	674	...	765	...	2,142	2	866	4	2,914	8	543	3	3,341	4	359	...	64	...	827	3
Cholera	...	...	15	9	51	36	3	2	1	1	27	23	29	22	28	18	24	15	1	...	...	...	2	1	...	...	17	9
nfluenza	3	...	1	...	1	...	...	...	...	...	3	...	1	...	10	...	...	...	...	...	3	...	...	...	...	...	...	...
Erysipelas	...	...	8	...	4	...	12	...	8	...	1	...	10	1	13	...	10	1	20	1	13	...	6	...	...	...	9	...
Other Diseases	1	...	3	...	...	...	1	...	...	...	1	...	1	...	2	...	1	1	1	...	...	...	3	...	...	...	1	...
Total	569	3	1,040	18	770	43	442	8	734	1	937	25	2 324	31	1,377	31	3,329	33	1,182	12	4,928	16	447	2	81	1	975	15
Constitutional—																												
Rheumatism	60	...	233	...	141	...	91	...	46	...	110	...	273	...	353	...	273	...	284	...	60	...	77	...	24	...	165	...
Syphilis	111	...	457	...	838	...	257	...	76	...	93	...	391	1	229	...	241	...	160	...	178	...	213	...	66	...	170	...
Scrofula, Phthisis, &c. ...	18	2	28	5	42	8	17	3	11	...	12	3	19	3	21	3	38	8	25	1	32	3	19	1	2	...	39	4
Scurvy and Purpura ...	...	...	1	...	...	...	1	...	...	...	1	...	1	...	4	3	1	...	...	...	...	...	...	...	...	...	2	...
Anæmia	...	...	1	...	11	...	...	...	1	...	16	...	7	...	15	...	46	...	15	...	3	...	1	...	...	...	5	...
Other Diseases	1	...	1	...	...	...	2	...	...	...	...	...	5	1	3	1	1	...	2	1	3	...	5	...	...	...	1	...
Total	190	2	721	5	1,032	8	368	3	134	...	232	3	696	5	625	7	600	8	486	2	276	3	315	1	92	...	382	4

Bengal.

Ratio per 1,000 of Mean Strength

Divisions	Presidency.		Allahabad.		Oudh.		Rohilcund.		Saugor.		Gwalior.		Meerut.		Sirhind.		Lahore.		Rawal Pindi.		Peshawar.		Troops on March.		Camp of Exercise.		Depôts.	
General Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile—																														
Eruptive Fevers ...	...	...	14·42	...	·26	...	...	...	...	...	1·06	...	2·25	·21	·57	...	·58	...	1·09	...	·81	...	·89	...	...	...	·62	...
Continued ,, ...	175·54	·96	131·23	2·70	102·14	1·58	112·61	2·10	39·81	...	73·37	1·06	26·62	1·02	129·99	2·57	109·22	2·31	167·62	2·19	637·81	4·88	33·27	·44	35·53	2·09	74·59	1·86
Paroxysmal ,, ...	95·44	·48	158·56	...	86·04	·26	66·39	·42	526·15	...	406·70	...	438·66	·41	246·86	1·14	841·95	2·31	148·48	·82	1358·13	1·63	159·27	...	133·78	...	512·71	1·86
Cholera	...	...	4·50	2·70	13·46	9·50	1·26	·84	·78	·78	14·35	12·23	5·94	4·50	7·98	5·13	6·93	4·33	·27	...	...	...	·89	·44	...	...	10·54	5·58
Influenza	1·44	...	·30	...	·26	...	...	...	...	...	1·60	...	·21	...	2·85	...	...	...	...	...	1·22	...	...	...	...	...	...	...
Erysipelas	...	...	2·40	...	1·06	...	5·04	...	6·25	...	·53	...	2·05	·21	3·71	...	2·89	·29	5·47	·27	5·28	...	2·66	...	...	...	5·58	...
Other Diseases	·48	..	·90	...	...	...	·42	...	...	...	·53	...	·21	...	·57	...	·29	·29	·27	...	...	...	1·33	...	...	...	·62	...
Total	272·90	1·44	312·31	5·40	203·22	11·34	185·72	3·36	572·99	·78	498·14	13·29	475·94	6·35	392·53	8·84	961·86	9·53	323·20	3·28	2003·25	6·51	198·31	·88	169·31	2·09	604·46	9·30
Constitutional—																														
Rheumatism	28·78	...	69·97	...	37·21	...	38·24	...	35·91	...	58·48	...	55·91	...	100·63	...	78·88	...	77·66	...	24·39	...	34·16	...	50·17	...	102·30	...
Syphilis	53·24	...	137·24	...	221·17	...	107·98	...	59·33	...	49·44	...	80·07	·21	65·28	...	69·63	...	43·75	...	72·35	...	94·50	...	137·96	...	105·39	...
Scrofula, Phthisis, &c. ...	8·63	·96	8·41	1·50	11·09	2·11	7·14	1·26	8·58	...	6·38	1·60	3·89	·60	5·99	·86	10·98	2·31	6·84	·27	13·01	1·22	8·43	·44	4·18	...	24·18	2·48
Scurvy and Purpura ...	..	...	·30	...	...	...	·42	...	...	...	·53	...	·21	...	1·14	·86	·29	...	...	...	...	...	...	...	...	...	1·24	...
Anæmia	...	...	·30	...	2·90	...	...	...	·78	...	8·51	...	1·43	...	4·27	...	13·29	...	4·10	...	1·22	...	·44	...	...	...	3·10	...
Other Diseases	·48	...	·30	...	...	...	·84	...	...	...	...	...	1·02	·21	·85	·28	·29	...	·55	·27	1·22	...	2·22	...	...	...	·62	...
Total	91·13	·96	216·52	1·50	272·37	2·11	154·62	1·26	104·60	...	123·34	1·60	142·53	1·02	178·16	2·00	173·36	2·31	132·90	·54	112·19	1·22	139·75	·44	192·31	...	236·83	2·48

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Except for the Sirhind, Lahore, and Peshawar Divisions, and for Troops on the March, the rate of admissions for *general diseases*, is lower in every Division than in the preceding year. The largest reduction is the rate for the Meerut Division—278·2 per 1,000 men; the reduction for the Saugor Division is 265·2, for the Allahabad 214·6, and for the Gwalior 106·9 per 1,000 men. In the other Divisions for which the rate for the present year is ower than that for the preceding, the reduction varies from 106·7 for the Presidency, to 13·9 for the Oudh Division. The increase in the proportion of general diseases is 319· for the Peshawar, 251·9 for the Lahore, and 44·2 per 1,000 men for the Sirhind Division. For diseases of the *febrile group*, there is a decreased rate of prevalence for every Division, except the Lahore and the Peshawar; for diseases of the *constitutional group*, there is a lower rate of prevalence for every Division, except the Oudh, Sirhind, Rawal Pindi, and the Peshawar. The rate of mortality from *general diseases*, is lower than in the preceding year—for the Presidency by 9·85, for the Allahabad by 1·55, and for the Saugor Division by 8·61 per 1,000 men. The rate is higher for every other Division, the excess varying from 11·10 men per 1,000 men for the Gwalior, to ·43 per 1,000 for the Rawal Pindi Division. The association of a lesser prevalence of disease, and a smaller mortality from it than in 1874, in the Divisions first named, is due to the comparative exemption they experienced from the presence of fevers, both those of a mild, and those of a dangerous nature. The union of a reduced rate of admissions in certain of the Divisions with a higher rate of mortality is due to the diminished prevalence of fevers, and to the outbreak of cholera in them. The union of a higher rate of admissions and higher death-rate in the Peshawar Division, results from the greatly increased prevalence of fevers, both of a mild and of a severe kind.

Eruptive Fevers.—The rate of admissions for fevers of this nature is low for every Division in which any admissions took place, with the exception of the Allahabad, in which, at Cawnpore, an outbreak of dengue occurred in the F Battery, 19th Brigade, Royal Artillery. Respecting it the medical officer writes:—"An outbreak of dengue took place in the battery in a most unaccountable manner. No cases of the disease were known to exist in or near Cawnpore, yet on the 19th of October the disease showed itself; it lasted until the 13th of November; in all 43 cases of it were admitted, they were mostly well marked, and presented no peculiarities of type. No death from the disease occurred."

Continued Fevers.—The rate of admissions for fevers of this kind is higher than that of the preceding year for the Rohilcund, Gwalior, Sirhind, and Rawal Pindi Divisions, for Depôts, and also for Troops on the March; in each of the remaining Divisions the rate is lower, but as the diagnosis of a case of a continued fever from one of a paroxysmal fever must in many instances be a matter of uncertainty, it is of less moment to contrast the comparative rates of prevalence of continued fevers, than to contrast those of the mortality attributed to them in the various Divisions. Compared with the preceding year the rate of mortality from continued fevers is lower for the Presidency, Allahabad, Oudh, Saugor, Gwalior, and Meerut Divisions, and for Troops on the March, and is higher for each of the remaining Divisions. The reduction in the rate of deaths amounts to 7·44 per 100 men for the Presidency, to 5·97 for the Saugor, and is only fractional for each of the other Divisions, which show a reduced rate. The increase on the rate for 1874 amounts to 3·25 for the Peshawar, to 2·09 for the Sirhind, and to 1· per 1,000 men for the Rohilcund; in the remaining Divisions the increase is only a fractional one. These variations in the rates of mortality from continued fevers, mark pretty closely the relative prevalence of enteric fever in the different Divisions, in the two years contrasted.

Enteric Fever.—Taking all the Divisions together, the admission-rate for this disease is 2·86 per 1,000 of the strength, the death-rate is 1·53, and both are lower than the corresponding rate of the preceding year, the first by 1·81, and the last by ·34 per 1,000 men. The rate of mortality to cases of the disease treated is 537·03 per 1,000.

In the following Table the stations in the Command at which admissions and deaths from enteric fever took place are shown; having been compiled from

Bengal. the Monthly Returns, the numbers differ (unimportantly) from those in the Annual Returns :—

Divisions.	Stations.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
		Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
Presidency ..	Dum-Dum ..	..	..	2	..	..	..	..	..	2	..
	Barrackpore ..	..	..	1	..	1	1	3	1	5	2
Allahabad ..	Allahabad ..	3	2	1	1	..	..	1	..	5	3
	Dinapore ..	1	..	2	2	..	..	2	..	5	2
	Benares ..	..	..	..	..	..	..	1	1	1	1
	Cawnpore ..	1	..	2	1	4	1	..	..	7	2
Oudh ..	Lucknow ..	1	..	8	3	..	..	2	1	11	4
	Fyzabad ..	2	1	2	1	1	..	..	..	5	2
Gwalior ..	Fort Gwalior .	..	..	..	..	1	..	..	1	1	1
	Jhansi ..	..	..	1	..	..	..	..	..	1	..
Rohilcund ..	Bareilly ..	1	1	..	..	..	..	..	..	1	1
	Moradabad ..	..	..	1	1	..	..	..	..	1	1
	Ranikhet ..	..	..	..	..	1	1	..	..	1	1
Meerut ..	Meerut ..	2	3	2	..	1	..	..	..	5	3
	Muttra ..	..	..	..	1	..	..	..	..	..	1
	Delhi	..	..	..	..	..	..	1	1	1	1
Sirhind ..	Umballa ..	..	..	1	..	1	1	..	..	2	1
	Jullundur ..	..	..	3	3	1	1	3	2	7	6
	Dagshai ..	..	..	1	..	..	..	..	..	1	..
	Subathu ..	..	..	..	..	..	..	1	1	1	1
Lahore ..	Meen Meer ..	..	..	2	1	2	1	1	1	5	3
	Lahore ..	..	..	1	..	..	..	..	..	1	..
	Amritsar ..	..	..	..	..	..	..	1	1	1	1
	Ferozepore ..	..	..	..	..	..	..	4	2	4	2
Rawal Pindi	Rawal Pindi	..	..	3	..	..	..	1	..	4	..
	Sialkot ..	..	..	..	..	2	1	2	1	4	2
	Attock ..	..	..	1	1	..	..	..	..	1	1
	Campbellpore .	..	..	..	..	..	..	2	..	2	..
	Dera Ismail Khan	..	..	..	..	..	..	1	..	1	..
Peshawar ..	Peshawar ..	3	..	15	10	1	..	..	..	19	10
	Cherat ..	..	..	2	2	..	..	..	..	2	2
Depôt ..	Kasauli ..	..	..	1	1	..	..	..	..	1	1
	Murree ..	..	..	..	..	..	..	1	1	1	1
	On the march, and Camp of Exercise	1	..	..	..	..	..	1	1	2	1
	Total in the Command	15	7	52	28	16	7	28	15	111	57

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No outbreak of enteric fever comparable to that which occurred in the 2nd Battalion of the 22nd Regiment at Hazaribagh in 1874, took place in the present year at any station in the Command. The nearest approach to epidemic prevalence was that at Peshawar, in the second quarter of the year, when 15 admissions for the disease, distributed between four separate corps, were returned, the greatest number in any corps being 8; the sporadic character of the attacks, and the wide diffusion of the disease, are the principal features exhibited in the Table. Admissions took place at more than half of the stations in the Command.

Simple Continued Fever, and Febricula.—For all the Divisions admissions for these two forms of fever are in the rate of 128·3 per 1,000 men, being 47·6 per 1,000 lower than in 1874; 16 deaths are returned as those due to simple continued fever, giving a proportion exceeding by a third that of the preceding year for the same disease; excepting two, all the deaths from simple continued fever, occurred at stations where enteric fever prevailed.

Paroxysmal Fevers.—The rate of admissions is higher for the Presidency, Lahore, and Peshawar Divisions, and for Troops on the March, but is lower for each of the other Divisions than in the preceding year. The excess in the instance of Peshawar is 581·3, and of Lahore 323·6 per 1,000 men; in both of these Divisions an epidemic character was impressed on the fevers of this nature, which contrasts with the feature of diminished prevalence in most of the other Divisions. A lower rate of mortality from paroxysmal fevers is associated with one of diminished prevalence in the Allahabad, Oudh, Rohilcund, Saugor, Gwalior, and Meerut Divisions, but with a lower rate of admissions, in Rawal Pindi, that of deaths is a little higher. In the Sirhind Division, the lower admission rate is associated with a much higher death rate; in the Lahore, with increased prevalence there was a decreased mortality; in the Presidency, and in the Peshawar Divisions, increased prevalence and greater mortality are united. The high death rate from paroxysmal fevers of the Lahore Division, was due to the occurrence of seven deaths in the 1st Battalion 1st Foot, from remittent fever, a disease which prevailed concomitantly with enteric fever.

Cholera.—In 1874 nine admissions for cholera were returned in the whole Command, of which two in the Lahore Division were doubtful cases, the other seven took place in the Presidency, Allahabad, and Oudh Divisions. In the present year the troops in the Command had exemption from cholera until the 30th of March, when one of a party of invalids encamped at Bareilly was attacked, and the following day another man of the same party was also seized with cholera. The next admission took place on the 2nd of April, at Cawnpore, a station about 250 miles south-west of Bareilly, and on the line of road through which the invalids, amongst whom the disease first appeared, must have passed, making it probable that Bareilly was merely the place at which the disease, acquired elswhere, showed itself. Six admissions of men of the 73rd Foot, took place at Cawnpore in the first ten days of the outbreak in the regiment. The next admissions took place at Agra, Chunar, Muttra, and at Sitapur, on the 11th, 14th, 21st, and 29th of April respectively, one at each place, but from time to time, to the 3rd of May, there were other admissions at Muttra. On the 14th of May the disease caused two admissions at Roorkee, a station nearly 300 miles due north of Agra, and on the 18th of May a man of the 1st Battalion 5th Foot was attacked at Allahabad. A fortnight before this, however, an officer of the Royal Artillery had died of cholera at that place. For six weeks a lull in the spread of the disease now occurred. During this time, with the exception of Roorkee, where admissions (four in all) took place, no non-commissioned officers or men were attacked at any station in the Command, but at Dinapore the presence of the disease was indicated in the attack of a child on the 27th May. The disease re-appeared at the hill station of Kasauli, where, between the 4th of July and the 3rd of August, 17 of the men of the Convalescent Depôt were attacked, and the families of the married soldiers there, also suffered severely. At Fort Kangra one admission took place on the 15th of the same month, and on the 24th a man of the 9th Lancers was attacked at Sialkot; this was the most northerly point at which cholera appeared amongst the European Troops during the year. At the same station, a man was attacked with what is returned as

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simple cholera, in the third quarter of the year. The important stations of Lucknow, and Umballa, were both invaded on the same day, the 6th of August. The epidemic in the first named station lasted for ten weeks; the last admissions were in the week ending the 1st of October; its course was marked by a gradual increase of intensity, culminating in the sixth and seventh weeks, in which more than half of all the attacks occurred. No corps in the garrison had exemption from the disease, but its comparative prevalence was greatest in the Royal Artillery. The epidemic at Umballa presented important points of difference, its outbreak was more violent, it lasted only half the time—five weeks—its intensity was greatest at the outset, and it was confined to the men of one corps only, the 4th Battalion of the Rifle Brigade, the men of the Cavalry and of the Royal Artillery, remained free from the disease. Cholera appeared in the same month at the following stations:—Nowgong on the 8th, Gwalior on the 9th, at Bhagsu, and at Delhi, on the 14th, at Morar and at Ferozepore, on the 23rd; at the first named station the epidemic continued for nine weeks, the last admission being on the 17th of October. The attacks were most numerous in the first weeks of the period, all except two, were those of men of the 54th Regiment. At Ferozepore, the attacks were most numerous at the outset, and all but two occurred in the 2nd Battalion, 12th Foot. At Fyzabad, the outbreak amongst the men began in the second week of September. but previous to this there had been cases of cholera in the families of the soldiers; the disease prevailed for six weeks, its greatest intensity being in the fourth and fifth; all the attacks were in the 51st Foot. In point of time, the next outbreak was that on the 4th of September, at Meerut; the 12 admissions there were in the Royal Artillery, neither the Cavalry nor the Infantry regiment, quartered at this station suffered. The other stations, at which cases of cholera occurred, were Moradabad on the 5th, Fort Govindgarh on the 9th, and Amritsar on the 15th of September. In October, Meen Meer was the only station attacked, the first admission being on the 21st of that month. The last admission for cholera during the year, took place on the 11th of November, and was that of a man on the march in the Lahore Division.

The admissions and deaths from epidemic cholera at each station in the Command, in each week of the year, are shown in the following Table; 14 admissions and 6 deaths, returned as due to simple cholera, are not included:—

Divisions.	Week ending	April.										May.								June.								July.						
		2		9		16		23		30		7		14		21		28		4		11		18		25		2		9		16		23
	Stations.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.
Allahabad.	Allahabad	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Chunar	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Cawnpore	1	..	4	3	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Oudh.	Lucknow	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Fyzabad	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Sitapur	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rohilcund.	Moradabad	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Saugor.	Nowgong	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Morar	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gwalior.	Fortress Gwalior	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Meerut.	Meerut	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Muttra	..	..	..	..	..	..	1	1	2	1	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Delhi	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Roorkee	..	..	..	..	..	..	..	..	..	..	..	..	2	1	1	2	1	1	..	..	1	..	..	..	1	1	..	..	..	..	..	..	..
Sirhind.	Umballa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Kasauli	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	8	5	2
Lahore.	Lahore	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Meen Meer	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Amritsar	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Fort Govindgarh	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Ferozepore	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Fort Kangra	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
	Bhagsu	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rawal Pindi.	Sialkote	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	On March	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total admissions	3	..	4	..	2	..	1	..	3	..	3	..	2	..	2	..	1	..	..	..	1	..	..	..	1	..	..	..	3	..	9	..	2
	" deaths	..	2	..	3	..	1	..	2	..	2	..	1	..	1	..	2	..	1	..	..	..	..	..	..	..	1	..	..	..	1	..	5	..

st.				September.								October.										November.								Total.	
20		27		3		10		17		24		1		8		15		22		29		5		12		19		26			
Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
..	..	1	1	3	2	..	..	2	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	4
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	5
2	2	1	..	2	1	12	8	6	5	10	8	4	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	38	28
..	..	..	..	..	..	2	2	1	..	1	1	3	1	5	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	12	6
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
..	..	..	..	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
..	..	4	3	6	3	2	3	2	2	3	3	1	2	..	..	2	2	1	1	..	..	..	..	..	..	..	..	..	..	21	19
..	..	4	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	4
..	..	..	..	1	1	3	2	6	4	3	3	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14	11
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	4
1	1	3	2	..	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	5
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	5
4	4	2	..	2	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	29	17
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	17	9
..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	.	..	..	..	..	..	..	..	..	..	..	..	..	1	1
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	1	..	..	..	..	..	..	..	..	3	2
..	..	..	..	..	..	..	..	1	1	4	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	2
..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
..	..	3	2	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	2	2	..	..	1	1	1	..	..	..	8	6
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
4	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	4
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	3	2
11	..	18	..	14	..	24	..	18	.	23	..	8	..	8	..	2	..	2	..	4	..	..	..	2	..	1	..	..	..	203	..
..	10	..	10	..	8	..	18	..	13	..	17	..	6	..	4	..	3	..	2	..	3	..	..	..	1	..	..	..	..	..	137

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Rheumatism.—The rate of admissions for this disease is not materially different from the corresponding one of the preceding year for any Division except the Allahabad, the Sirhind, the Lahore, the Rawal Pindi, and the Peshawar. For the Allahabad, Rawal Pindi, and the Sirhind, the rate is 29·9, 22·5, and 37·5 per 1,000 men respectively in excess; for the Lahore, and for the Peshawar Divisions, there is a decrease of 34·, and of 10·7 per 1,000 men respectively.

Syphilis.—For the Oudh, the Sirhind, the Lahore, and the Peshawar Divisions, the rate of admissions exceeds that of the previous year; for each of the others the rate is lower. The excess in the instance of Oudh, amounts to 76·7 per 1,000 men.

Scrofula, Phthisis, &c.—The rate of admissions for diseases of this group is higher for the Saugor, Rohilcund, Gwalior, and Lahore Divisions, but is lower for each of the others.

Anæmia.—As in the preceding year, the highest rate of prevalence for this disease is that of Lahore.

Local Diseases.—*Diseases of the Nervous System.*—The rate of admissions of diseases in this order is higher for every Division than that of the preceding year, except for the Allahabad, and the Sirhind, and for Depôts. The rate of mortality is higher for every Division, except for the Presidency and for the Sirhind; the first-named shows a reduction of 2·19 per 1,000 men on the rate of 1874. The increase in the rate of mortality in the other Divisions is a material one in most instances, for Lahore and for Rawal Pindi it amounts to 3·84, and to 3·31 per 1,000 men respectively. Nearly one-half of the admissions in this order were due to neuralgia, the prevalence of which was greatest in the Lahore, and in the Rawal Pindi Divisions. One death was due to hydrophobia, in connection with which it is stated, that there was no evidence of the man's having been bitten by a dog for 6 years before his seizure. Three deaths were due to tetanus, in one instance the irritation of a bed sore was the exciting cause, in another the disease supervened on the subcutaneous injection of 5 grains of the neutral of sulphate of quinine which caused inflammation and suppuration at the place of the puncture; in the third instance of death from tetanus (that occurring in the 54th Foot) no mention is made of it in the report from that regiment.

Diseases of the Eye.—The rate of admissions for diseases of this order is higher than in the preceding year for the Saugor, Rohilcund, Gwalior, Meerut, and Rawal Pindi Divisions, and lower for the others; the reduction on the rate for the Presidency is 26· per 1,000 men; the increase on that of the Rohilcund, is 25· per 1,000 men; probably both the decrease and the increase were due to the transference from the first to the last-named Division of the 2nd Battalion, 22nd Foot, in which regiment conjunctivitis seems to be endemic.

Diseases of the Circulatory System.—The rate of prevalence of diseases of this order is higher than in the preceding year for the Presidency, Oudh, Saugor, and Gwalior Divisions, but is lower for the others; two-thirds of all of the admissions for diseases of the heart were due to palpitation, the relative frequency of which is not in relation to locality.

Diseases of the Respiratory System.—The rate of prevalence of diseases of this order is higher than in the preceding year, for the Presidency, and for the Rawal Pindi Divisions, and lower for each of the others; the excess in the rate of the last-named is 67·5 per 1,000 men, or nearly one-half.

Diseases of the Digestive System.—The rate of prevalence of diseases of this order is higher than in the preceding year for the Rohilcund, Gwalior, Lahore, and the Rawal Pindi Divisions, but is lower for each of the others; with a higher rate of prevalence, there is a higher rate of mortality for the Gwalior, and for the Lahore Divisions. In Sirhind, a reduced rate of prevalence and a fractionally higher death-rate are associated; the death-rate for Peshawar, is the same in both years; for each of the other Divisions the death-rate is lower—in most instances very much lower—than that of 1874. Of the deaths from diseases of this order, one was due to tonsillitis, and another to quinsy—both in the 81st Foot. In connection with these deaths it may be remarked that 2 admissions for diphtheria, are returned by this regiment. Four deaths are returned as due to splenitis, all by the 62nd Regiment, and one death from

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abscess of this organ is returned by the 85th Regiment, no remarks respecting it occur in the report.

The relative prevalence of, and the proportion of deaths from dyspepsia, dysentery, diarrhœa, and hepatitis, in the several Divisions, are shown in the first of the following Tables; in the second, the relation of the prevalence and fatality of the three last-named diseases to season are exhibited :—

Ratio per 1,000 of the Strength.

Divisions.	Presidency.		Allahabad.		Oudh.		Saugor.		Rohilcund.		Gwalior.		Meerut.	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Dysentery	32·6	·48	35·1	·30	24·8	·53	18·8	...	35·3	1·68	30·8	1·06	29·7	·61
Diarrhœa	42·7	...	64·0	...	67·6	...	35·9	·78	65·1	...	60·6	...	65·9	·20
Hepatitis and Abscess of the Liver	32·6	2·40	42·9	2·70	33·8	1·58	29·7	...	34·5	2·10	56·9	1·59	39·7	1·23
Total	107·9	2·88	142·0	3·00	126·2	2·11	84·4	·78	134·9	3·78	148·3	2·65	135·3	2·04
Dyspepsia	44·6	...	36·9	...	37·5	...	36·7	...	40·3	...	42·4	...	47·5	...

Divisions.	Sirhind.		Lahore.		Rawal Pindi.		Peshawar.		Depôts.		Troops on the March.		Camp of Exercise.	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Dysentery	13·7	·29	24·0	1·16	19·1	·55	26·4	·41	46·0	·61	22·2	·44	58·6	...
Diarrhœa	53·0	...	96·5	·29	63·2	...	37·8	...	110·4	...	33·7	...	43·9	...
Hepatitis and Abscess of the Liver	23·7	·86	27·5	1·16	29·8	1·09	33·7	·41	88·3	4·29	23·5	·44	16·7	...
Total	90·4	1·15	148·0	2·61	112·1	1·64	97·9	·82	244·7	4·90	79·4	·88	119·2	...
Dyspepsia	36·8	...	42·2	...	51·1	...	19·1	...	34·3	...	7·5	...	6·3	...

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	Hepatitis, including Abscess of the Liver.				Dysentery.				Diarrhœa.				Total.			
	Number.		Annual Ratio per 1,000 of Strength.		Number.		Annual Ratio per 1,000 of Strength.		Number.		Annual Ratio per 1,000 of Strength.		Number.		Annual Ratio per 1,000 of Strength.	
	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Ist Quarter	239	10	6·4	·27	146	2	3·9	·05	267	..	7·2	..	652	12	17·5	·32
IInd "	360	12	9·7	·32	227	5	6·1	·13	554	1	14·9	·03	1,141	18	30·7	·48
IIIrd "	394	15	10·6	·40	314	4	8·4	·11	970	..	26·1	..	1,678	19	45·1	·51
IVth "	342	17	9·2	·46	322	12	8·7	·32	526	2	14·1	·05	1,190	31	32·0	·83

Diseases of the Urinary System.—The rate of prevalence of diseases of this order is lower for every Division except the Oudh, Saugor, and the Rawal Pindi. One of the deaths is returned as due to Addison's disease ; no remarks respecting it are made in the report. One death from suppurative nephritis is returned, and one from abscess of the kidney ; respecting the first no remarks are made, the other was a consequence of stricture.

Diseases of the Cutaneous System.—The rate of admissions for diseases of this order is higher than in the preceding year for the Presidency, Rohilcund, Saugor, Gwalior, and Lahore Divisions, and lower for each of the remaining ones.

There were 27 admissions for the Delhi boil, or ulcer ; the greatest number returned by any corps is 11 by the 92nd Regiment, stationed at Mooltan, and having a detachment at Dera Ismail Khan. The following remarks respecting the prevalence of this form of disease are taken from the Report of the Medical Officer at the last-named station :—"The ulcer called 'Delhi sore' was the "the only skin disease prevalent among the men of the detachment during "the past year ; it attacked 22 per cent. of the strength, but only 4 per cent. "required admission into hospital. • • • The disease made its appearance "in the month of June, and prevailed during the four succeeding months ; "it appeared to be a purely local affection, and it attacked indiscriminately "the healthy and the unhealthy, the young, and the middle-aged.

CONDITIONS, &c.—*General Debility.*—The rate of admissions for debility is higher for every Division, except for the Presidency, the Meerut, and the Peshawar ; for the last-named the reduction amounts to more than one-half.

POISONS.—All the admissions in this order, were due to alcohol poisoning, or to delirium tremens, excepting two, which were caused—one by lead poisoning, the other (not ending fatally) by snake bite. The proportional prevalence of diseases of this order has other relations than those of locality.

The admissions and deaths in each corps which served in the Bengal Command are shown in the following Table :—

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Regiments.	Years of service in the Command.	Average Annual Strength.	Admitted into Hospital.	Deaths.		Invalided.	Constantly Sick.	Ratio per 1,000 of Strength.				Average sick time to each soldier.	Average duration of each case of sickness.	Stations during the Year.
				In India.	Of Invalids.			Admitted.	Died.	Invalided.	Constantly Sick.			
												Days.	Days.	
4th Hussars	8	452	441	1	..	26	17·73	975·7	2·21	57·52	39·22	14·32	14·71	Rawal Pindi, 12 months; det. in Camp and on the March.
9th Lancers .. .. (From 10th Feb. to 31st Dec.)	..	459	691	11	..	23	32·73	1502·0	23·97	50·13	71·31	26·03	17·28	Sialkot 10¾; on the March ¾.
10th Hussars	3	462	379	12	..	16	21·34	820·3	25·97	34·63	52·68	19·23	23·41	Muttra 10½; on the March and at Camp of Exercise 1½.
11th ,, ...	9	447	499	8	1	15	21·55	1116·3	20·13	33·56	48·21	17·60	15·76	Umballa 11; Camp of Exercise 1.
13th ,, ...	2	454	532	10	1	29	37·29	1171·8	24·23	63·88	82·14	29·98	25·58	Lucknow 10½; Dehi 1½.
15th ,, ...	3	472	1,075	6	..	18	32·90	2277·5	12·73	38·13	69·70	25·44	11·17	Meerut 10¼; Camp 1¾.
Total	..	2,746	3,617	48	2	127	166·54	1317·2	18·21	46·21	60·65	22·14	16·80	
Hd.-Qrs. and A Batt., A Brig., R.H.A.	10	165	157	..	..	9	7·59	951·5	..	54·54	46·00	16·79	17·45	Umballa 10¾; Camp 1¼.
B Batt., A Brig., R.H.A.	10	142	225	10	..	3	7·63	1584·5	70·42	21·12	53·73	19·61	12·38	Lucknow 12.
C ,, ,, ,,	10	156	183	2	..	6	7·00	1173·1	12·82	38·46	44·87	16·38	13·96	Umballa 10¾; Camp 1¼.
D ,, ,, ,,	10	149	166	3	..	4	8·23	1114·1	20·13	26·85	55·24	20·16	18·10	Sialkot 10; Meerut ¾; Camp 1¼.
E ,, ,, ,,	10	149	183	2	..	10	7·46	1228·2	13·42	67·11	50·07	18·28	14·88	Morar, 12.
A Batt., C Brig., R.H.A.	3	168	347	1	..	7	8·62	2065·5	5·95	41·67	51·31	18·73	9·07	Meerut, 10½; Camp and on the March, 1½.
A ,, F Brig. ,,	..	147	266	3	..	7	7·83	1809·5	20·41	47·62	53·27	19·44	10·74	Meen Meer, 12.
B ,, ,, ,, ,,	..	152	146	1	..	2	5·09	960·5	6·58	13·16	33·49	12·22	12·72	Campbellpore, 10½; Peshawar, ½; Camp, 1.

Hd.-Qrs. and C Batt., F Brig., R.H.A.	..	157	428	1	..	7	7·74	2726·1	6·37	44·59	49·20	17·99	6·60	Peshawar, $11\frac{3}{4}$; dets. at Murree and at Cherat; on the March, $\frac{3}{4}$.
E Batt., F Brig., R.H.A.	..	145	258	4	..	9	8·42	1779·2	27·59	62·07	58·07	21·19	11·91	Meerut, 11; on the March, 1.
F " " "	..	150	147	..	..	13	5·13	980·0	..	86·66	34·20	12·48	12·74	Rawal Pindi, 12.
3rd Batt., 5th Brig., R.A.	8	71	79	2	..	2	5·32	1067·6	27·03	27·03	71·90	26·24	24·58	Calcutta $10\frac{3}{4}$; det. at Calcutta, $1\frac{1}{4}$.
A " 8th " "	9	160	197	1	..	5	9·84	1231·3	6·25	31·25	61·50	22·44	18·23	Jullundur, $10\frac{1}{2}$; Camp, $1\frac{1}{2}$.
Hd.-Qrs. and B Batt., 8th Brig., R.A.	9	150	210	3	..	5	7·86	1400·0	20·00	33·33	52·40	19·12	13·66	Meerut, $11\frac{1}{2}$; Camp, $\frac{3}{4}$.
C Batt., 8th Brig., R.A.	9	147	275	3	..	5	10·83	1870·7	20·40	34·01	73·67	26·89	14·37	Mooltan, 12.
D " " "	9	150	217	5	..	6	8·35	1446·6	33·33	40·00	55·66	20·32	14·04	Meen Meer, 12.
E " " "	9	138	233	3	..	11	8·74	1688·4	21·74	79·71	63·33	23·12	13·69	Ferozepore, 12.
F " " "	9	153	226	7	..	4	8·14	1477·1	45·75	26·14	53·20	19·42	13·15	Meerut, $11\frac{1}{4}$; Camp, $\frac{3}{4}$.
G " " "	9	151	349	2	..	10	6·21	2311·2	13·25	66·23	41·13	15·01	6·49	Peshawar, 12.
H " " "	9	150	200	..	..	11	8·68	1333·3	..	73·33	57·87	21·12	15·84	Rawal Pindi, 12.
Hd.-Qrs. and A Batt., 11th Brig., R.A.	2	165	330	5	..	7	12·37	2054·5	30·30	42·42	74·97	27·36	13·32	Barrackpore, 12; det. at Calcutta.
B Batt., 11th Brig., R.A.	..	160	319	5	..	11	12·11	1993·8	31·25	68·75	75·69	27·63	13·85	Barrackpore, 12; det. at Calcutta.
C " " "	..	162	242	3	..	5	12·91	1493·8	18·51	30·86	79·69	29·09	19·47	Dinapore, 12.
D " " "	..	167	249	6	..	4	10·51	1491·0	35·93	23·95	62·93	22·97	15·41	Benares, 12.
E " " "	..	166	310	1	..	3	17·66	1867·5	6·02	18·07	106·39	38·83	20·79	Allahabad, 12.
F " " "	..	148	278	3	..	5	8·55	1878·4	20·27	33·78	57·77	21·09	11·23	Saugor, 12.
G " " "	..	160	226	4	..	..	9·19	412·5	25·00	..	57·44	20·96	14·84	Nowgong, 12.
1st Batt., 13th Brig., R.A.	4	89	78	..	..	..	2·65	876·4	..	..	29·78	10·87	12·40	Rawal Pindi, $3\frac{1}{4}$; Khyra Gully, $6\frac{3}{4}$; Fort Govindgarh, $\frac{3}{4}$.
Hd.-Qrs. and 2nd Batt., 13th Brig., R.A.	..	94	168	1	..	5	4·07	1787·2	10·64	53·19	43·20	15·80	8·84	Meen Meer, 12; dets. at Amritsar and Fort Lahore.
3rd Batt., 13th Brig., R.A.	..	80	173	2	..	8	5·00	2162·5	25·00	100·00	62·50	22·81	10·55	Fort Attock, 12.
4th " " "	..	82	247	2	..	8	8·51	3012·2	24·39	97·56	103·78	37·88	12·58	Peshawar, 12.
5th " " "	..	74	151	2	..	6	4·19	2040·5	27·03	81·08	56·62	20·64	10·13	Ferozepore, 12.
6th " " "	..	92	87	2	..	4	5·03	945·6	21·74	43·48	54·67	19·95	21·13	Jutogh, $10\frac{1}{2}$; Camp. $1\frac{1}{2}$.
7th " " "	..	83	47	..	..	..	·3	566·3	..	..	27·47	10·78	18·48	Darjeeling, $10\frac{3}{4}$; Calcutta, $1\frac{1}{4}$.

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Regiments.	Years of service in the Command.	Average Annual Strength.	Admitted into Hospital.	Deaths.		Invalided.	Constantly Sick.	Ratio per 1,000 of Strength.				Average sick time to each soldier.	Average duration of each case of sickness.	Stations during the Year.
				In India.	Of Invalids.			Admitted.	Died.	Invalided.	Constantly Sick.			
												Days.	Days.	
A Batt., 19th Brig., R.A.	..	161	213	1	..	7	9·51	1322·9	6·21	43·48	59·07	21·56	16·29	Agra, 12.
B " " "	..	163	220	3	..	15	8·77	1349·7	18·40	92·02	53·80	19·64	14·46	Morar, 12 months.
C " " "	..	148	183	1	..	4	6·66	1236·5	6·76	27·03	45·00	16·12	13·28	Bareilly, 10¾; Camp, 1¼.
D " " "	..	151	178	3	..	5	10·06	1178·8	19·87	33·11	66·62	24·32	20·63	Fyzabad, 12.
E " " "	..	145	149	3	..	2	7·63	1028·0	20·69	13·78	52·62	19·21	18·69	Sitapur, 12.
F " " "	..	155	235	3	..	3	8·34	1516·1	19·35	19·35	53·81	19·61	12·95	Cawnpore, 10½; Camp, 1½.
Hd.-Qrs. and G Batt., 19th Brig., R.A.	..	168	214	7	..	1	9·36	1273·8	41·67	5·95	55·71	20·33	15·96	Lucknow, 12.
Hd.-Qrs. and 1st Batt., 23rd Brig., R.A.	..	95	127	2	..	..	4·67	1336·9	21·05	..	49·16	17·90	13·42	Morar, 10¾; Camp, 1¼.
2nd Batt., 23rd Brig., R.A.	..	91	151	6	..	1	7·34	1659·3	65·93	10·99	80·66	29·44	17·74	Delhi, 11½; on the March, ½.
3rd " " "	..	89	201	1	..	3	4·46	2258·4	11·24	33·71	50·12	18·29	8·09	Fort Govindgarh, 11½; on the March, ½.
4th " " "	..	87	115	1	..	4	5·57	1321·9	11·49	45·98	64·04	23·37	17·68	Fortress Gwalior, 11¼; on the March, ¾.
5th " " "	..	82	98	2	..	..	4·07	1195·1	24·30	..	49·63	18·12	15·16	Agra, 11½; on the March, ½.
6th " " "	..	94	108	..	..	..	7·25	1149·0	..	..	77·13	28·15	24·51	Allahabad, 11½; on the March, ½.
7th " " "	..	89	115	5	..	..	4·56	1292·1	56·18	..	51·23	18·70	14·47	Lucknow, 11½; on the March, ½.
* Invalids of the above Brigades.	..	..	..	..	9	..	..	..	..	..	..	..	..	
Total	..	6,393	9,713	127	9	247	368·09	1519·3	21·27	38·64	57·58	21·01	13·83	
41st Company, Royal Engineers ..	..	58	32	3	..	1	1·04	551·7	51·72	17·24	17·92	6·54	11·87	Roorkee, 12.

* The records do not show to which Batteries these men belonged, the Brigades were 8th (3), 11th (2), 13th (1), 21st (2), not stated (1).

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2nd Batt , 1st Foot ..	9	915	2,374	33	..	80	76·62	2594·5	35·98	87·43	83·74	30·56	11·78	Ranikhet, ¼; Meen Meer, 9¾; on the March, 2; det. at Fort Lahore.
1st „ 3rd „ ..	9	841	693	8	5	45	33·93	824·0	15·46	53·51	40·34	14·73	17·86	Calcutta, 10¾.
1st „ 5th „ ..	9	889	947	19	..	49	44·63	1065·2	21·37	55·12	50·20	18·32	17·20	Allahabad, 12.
1st „ 6th „ ..	7	918	1,650	23	1	50	71·63	1797·4	26·14	54·46	78·03	28·48	15·85	Sialkot, 12; det. at Amritsar, Fort Govindghar, and Ranikhet.
1st „ 8th „ ..	7	889	844	2	1	49	35·79	949·4	3·37	55·12	40·26	14·69	15·48	Chakrata, 1¾; Camp, 1¼.
2nd „ 9th „ ..	1	861	1,076	15	..	23	40·72	1249·7	17·42	26·71	47·30	17·26	13·81	Rawal Pindi, 12; det at Fort Attock.
1st „ 11th „ ..	11	876	844	6	..	31	37·44	963·5	6·85	35·39	42·74	15·60	16·19	Jubbulpore, 12; det. at Saugor.
2nd „ 12th „ ..	11	872	693	17	3	21	35·56	794·7	22·94	24·08	40·78	14·88	18·73	Ferozepore, 12.
Hd.-Qrs. and 1st Batt., 14th Foot.	7	471	552	6	2	27	34·63	1172·0	16·98	57·32	73·52	26·84	22·90	Sitapur, 12.
Wing, 1st Batt., 14th Foot.		377	499	7	..	17	35·59	1323·6	18·57	45·09	94·40	34·46	26·03	Benares, 12.
1st Batt., 17th Foot ..	5	884	2,175	10	1	39	60·10	2460·4	12·44	44·12	67·99	24·81	10·08	Peshawar, 12; det. at Cherat.
1st „ 18th „ ..	1	908	847	11	..	28	37·78	932·8	12·11	30·84	41·61	15·19	16·28	Bareilly, 12; det. at Moradabad and at Ranikhet.
2nd „ 19th „ ..	12	897	960	9	2	34	51·56	1070·2	12·26	37·90	57·48	20·98	19·60	Bareilly, 2; Ranikhet, 9¼; on the March, ¾.
Hd.-Qrs. and 2nd Batt., 22nd Foot.	2	556	409	3	..	7	21·42	735·6	5·39	12·59	38·52	14·06	19·11	Shahjehanpur, 2½; Ranikhet, 8½; on the March.
Wing, 2nd Batt., 22nd Foot.		373	320	11	..	14	18·47	857·9	29·49	37·53	49·52	18·08	21·07	Shahjehanpur, 12.
1st Batt., 25th Foot .. (From 15th Nov. to 31st Dec.)	..	107	199	1	..	..	4·61	1859·8	9·34	..	43·08	15·72	8·45	Fyzabad, 1¼; on the March.
2nd Foot Batt., 25th .. (From 1st Jan. to 7th Feb.)	12	63	31	1	1	..	1·87	492·1	31·75	..	29·68	10·83	22·02	Jubbulpore, ¾; on the March.
34th Foot .. .. (From 2nd Nov. to 31st Dec.)	..	94	115	..	..	..	2·70	1223·4	..	..	28·72	10·48	8·57	Ferozepore, 1¾; on the March.
36th Foot .. .. (From 1st Jan. to 13th Nov.)	12	676	588	10	1	8	27·45	869·8	16·27	11·82	40·61	14·82	17·04	Meen Meer, 2½; Subathu, 8¾; dets. at Fort Lahore and Umballa; on the March.

Regiments.	Years of service in the Command.	Average Annual Strength.	Admitted into Hospital.	Deaths.		Invalided.	Constantly Sick.	Ratio per 1,000 of Strength.				Average sick time to each soldier.	Average duration of each case of sickness.	Stations during the Year.
				In India.	Of Invalids.			Admitted.	Died.	Invalided.	Constantly Sick.			
												Days.	Days.	
37th Foot .. .. (From 1st Jan. to 1st March.)	12	70	44	2	..	1	3·00	628·6	28·57	14·28	42·86	15·64	24·90	On the March.
39th Foot	6	930	1,217	7	1	11	46·00	1308·6	8·60	11·83	49·46	18·05	13·80	Nowshera, ¾ month; Dagshai, 9 months; Camp, 1½ months; det. at Fort Attock.
40th ,, ...	3	899	1,154	10	..	43	53·67	1283·6	11·11	47·83	59·70	21·79	16·98	Lucknow, 10¼; Dum Dum, ½; Calcutta, 1¼; det. at Barrackpore.
51st ,, ...	3	896	1,175	18	..	52	54·42	1311·3	20·09	58·03	60·74	22·17	16·90	Fyzabad, 10; on the March.
54th ,, ...	4	885	885	26	1	42	68·21	1000·0	30·51	47·46	77·07	28·13	28·13	Morar, 12; det. at Fortress Gwalior.
Hd.-Qrs., 55th Foot	11	405	460	12	..	56	18·87	1135·8	29·64	67·39	46·59	17·01	14·97	Camp of Exercise, ½; Roorkee, 10¼; Delhi, ½; on the March.
Wing ,,		431	748	10	..		26·41	1735·5	23·20		61·28	22·31	12·89	Delhi, 12.
59th Foot	1	940	961	11	2	54	55·26	1022·3	13·83	57·45	58·79	21·46	20·99	Agra, 12.
2nd Batt., 60th Foot ..	8	907	687	6	2	35	28·10	757·4	8·82	38·59	30·98	11·28	14·93	Rawal Pindi, 2¾; Kooldunah, 6½; Camp of Exercise and on the March; det at Chungla Gully, Kalabagh, and Baragully.

62nd Foot	7	876	697	12	..	10	32·38	795·7	13·70	11·41	36·96	13·49	16·96	Dum Dum, 10¼; Camp of Exercise and on the March, 1¾; dets. at Barrackpore and at Hazaribagh.
63rd ,,	2	858	1,425	19	..	37	41·02	1660·9	22·14	43·12	47·82	17·45	10·51	Jhansi, 12; det. at Fortress Gwalior and at Nowgong.
65th ,,	4	906	749	15	..	25	48·08	826·7	16·56	27·59	53·07	19·37	23·43	Lucknow, 12.
70th ,,	4	883	3,002	21	..	42	83·48	3399·8	23·73	47·56	94·54	34·51	10·15	Rawal Pindi, ½; Peshawar, 11½; dets. at Cherat and at Nowshera.
72nd ,,	4	858	1,600	7	..	38	41·45	1864·8	8·16	44·29	48·31	17·63	9·45	Peshawar, ¾; Nowshera, 2; Cherat, 9; dets. at Fort Attock, Amritsar, and Sialkot.
73rd ,,	2	892	1,086	21	1	27	63·21	1217·5	24·66	30·27	70·86	25·86	21·24	Cawnpore, 10½; on the March and in Camp of Exercise, 1½.
81st ,,	1	869	938	20	..	14	44·90	1079·4	23·01	16·11	51·67	18·86	17·47	Jullundur, 12; dets. at Fort Kangra and at Bhagsu.
85th ,,	8	859	1,256	12	2	43	55·26	1462·2	16·30	50·06	64·33	23·48	16·06	Meerut, 11¼; Camp of Exercise, ¾; dets. at Fategarh and at Lucknow.
92nd ,,	8	876	1,609	9	..	39	51·62	1836·7	10·27	44·52	58·93	21·51	11·71	Mooltan, 12; det. at Dera Ismail Khan.
109th ,, ,,	..	929	1,204	11	2	29	53·47	1296·1	13·99	31·21	57·55	21·01	16·21	Dinapore, 12; dets. at Chunar and at Hazaribagh.
4th Batt., Rifle Brig.	2	935	1,041	30	1	28	46·09	1113·4	33·15	29·95	49·29	17·99	16·16	Umballa, 9¾; Delhi, ¾; Camp, 1½.
Total	..	28,571	37,754	471	29	1148	1587·40	1321·4	17·50	40·18	55·56	20·28	15·34	

Bengal. In the following Table, for the purpose of contrasting the results as regards health in relation to length of residence in the Command, the various corps are grouped according to their periods of service in it:—

Corps.	Year of Service in the Command.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average number of Constantly Sick.	Rate per 1,000 of Annual Strength.				Average sick time to each Soldier.	Average duration of each case of Sickness.
							Admitted.	Died.	Invalided.	Constantly Sick.		
											Days.	Days.
9th Lancers... ... ... 1st Battalion, 25th Foot ... 34th Foot	Under 1 year	660	1,005	12	23	40·04	1522·7	18·18	34·85	60·67	22·14	14·54
2nd Battalion, 9th Foot ... 1st ,, 18th ,, ... 59th Foot ... ... 81st ,, ...	1 year	3,578	3,822	59	119	178·66	1068·2	16·49	33·26	49·93	18·23	17·06
13th Hussars... ... ... 11th Brig., Royal Artillery... 2nd Battalion, 22nd Foot... 63rd Foot ... ... 73rd ,, ... 4th Battn. Rifle Brigade...	2 years	5,196	6,776	126	177	310·80	1304·1	24·25	34·06	59·81	21·83	16·74
10th Hussars... ... ... 15th ,, ... A Battery, C Brig., R.H.A... 40th Foot ... ... 51st ,, ...	3 years	2,897	4,130	57	136	171·95	1425·6	19·68	46·95	59·35	21·66	15·19
13th Brig., Royal Artillery 54th Foot ... ... 65th ,, ... 70th ,, ... 72nd ,, ...	4 years	4,126	7,187	80	178	273·05	1741·9	19·39	43·14	66·18	24·15	13·87
1st Battalion, 17th Foot ...	5 years	884	2,175	11	39	60·10	2460·4	12·44	44·12	67·99	24·81	10·08
30th Foot	6 years	930	1,217	8	11	46·00	1308·6	8·60	11·83	49·46	18·05	13·00
1st Battalion, 6th Foot ... 1st ,, 8th ,, ... 1st ,, 14th ,, ... 62nd Foot	7 years	3,531	4,242	54	153	210·92	1201·3	15·29	43·33	59·73	21·80	18·15
4th Hussars... ... ... 3rd Battery, 5th Brig. R.A. 2nd Battalion, 60th Foot... 85th Foot ... ... 92nd ,, ...	8 years	3,168	4,072	34	145	158·03	1285·4	10·73	45·77	49·88	18·21	14·16
11th Hussars... ... ... 8th Brig., Royal Artillery 2nd Battalion, 1st Foot ... 1st ,, 3rd ,, ... 1st ,, 5th ,, ...	9 years	4,291	6,420	101	246	245·38	1496·2	23·54	57·33	57·19	20·88	13·95
A Brig., Rl. Horse Artillery F ,, ,, ,, ... 19th Brig., Royal Artillery 23rd ,, ,, ,, ... Royal Engineers ... ... 1st Battalion, 11th Foot... 2nd ,, 12th ,, ... 2nd ,, 19th ,, ... 2nd ,, 25th ,, ... 34th Foot ... ... 36th ,, ... 37th ,, ... 55th ,, ... 109th ,, ...	10 years and over	8,507	10,070	157	296	427·05	1183·7	18·45	34·79	50·20	18·32	15·48

Bengal.

In the Table no constant specific differences are seen in the results for the various groups; this may perhaps be owing to the influence of the epidemic prevalence of cholera as regards the death-rate, and to the epidemic prevalence of paroxysmal fevers (in two Divisions of the Command) as regards the amount of sickness. The necessity for taking longer periods of time than one year, in order to make a safe induction with respect to the relative liability to disease, of regiments of short and those of long service in the Command, is apparent.

Officers.

In a strength of 1,349 officers, there were 1,037 cases of sickness, and 18 deaths in the Command, being in the rates of 7,687, and of 13·34 per 1,000 of the strength respectively.

General Diseases.—The proportion of attacks of diseases of this class is 275·7 per 1,000 of the strength, that of the *febrile group*, of the class being 226·1, and that of the *constitutional group*, 49·6 per 1,000. All the deaths (4) in the class were from diseases of the febrile group.

Eruptive Fevers.—Two of the three attacks were of small-pox.

Continued Fevers—Enteric Fever.—One (fatal) attack of this form of fever is returned. *Simple Continued Fevers*, caused 83, and *Febricula*, 58 attacks. *Paroxysmal Fevers*, caused 152 attacks (being in the rate of 112·7 per 1,000 of the strength against 361·7 in the case of the non-commissioned officers and men); one death from remittent fever is returned. *Cholera.*—Only two attacks of this disease occurred, giving a proportion of 1·48 per 1,000 of the strength (the rate of admissions of the men for cholera is 5·5 per 1,000); both of the attacks were fatal.

Diseases of the Nervous System.—Encephalitis caused two, apoplexy one, and sunstroke, two admissions.

Diseases of the Respiratory System, caused 39 attacks; two of them (one from bronchitis, and one from pleurisy) were fatal.

Diseases of the Digestive System.—The rate of attacks is 179·4 per 1,000 of the strength (the admission-rate of the men for diseases of this order being 222·6 per 1,000). The death-rate is 3·76 per 1,000 (against 3·15 per 1,000 for the men). The fatal illnesses were dysentery (1), hepatitis (3), peritonitis (1).

Poisons.—There were three attacks of diseases in this order, one of them being fatal.

Injuries.—*Accidental.*—Two deaths followed on accidental injuries, one being due to a fracture, one to gunshot. *Self-inflicted.*—The suicidal death was by gunshot.

Women.

The average annual strength of the wives of the non-commissioned officers and men was 3,768; the admissions into hospital were 3,848, and the deaths (those in the Command only) were 107, being in the rates of 1021·2 and of 28·39 per 1,000 of the strength respectively.

General Diseases.—*Diseases of the Febrile Group*, caused 1,330 admissions.

Eruptive Fevers.—There were 2 admissions for small-pox, 7 for measles, and 2 for dengue.

Continued Fevers.—Enteric fever, caused 4 admissions (and 3 deaths); simple continued fever, 285 admissions (and 5 deaths); febricula, 119 admissions.

Paroxsymal Fevers, caused 856 admissions; 2 deaths are returned as due to ague, and 10 to remittent fever.

Cholera.—For this disease there were 41 admissions; 26 of the attacks ended fatally; the admission rate (10·9 per 1,000 of the strength) is nearly double that for the non-commissioned officers and men, in the Command.

Diseases of the Constitutional Group.—For scrofula, and for phthisis, there were 41 admissions; 8 deaths were due to phthisis.

Diseases of the Nervous System.—Sunstroke caused 10 admissions; 4 of the attacks were fatal. Tetanus caused 1 admission (fatal). There were 3 admissions for different forms of mental disease.

Diseases of the Eye.—All the admissions in this order excepting 12 were for conjunctivitis, the rate of prevalence of which is 56·2 per 1,000 of the strength, being nearly threefold higher than that for the men in the Command.

Bengal.

Diseases of the Circulatory System.—One death was due to valve disease, and 1 to fatty degeneration of the heart.

Diseases of the Respiratory System.—Two deaths were due to bronchitis, and 3 to pneumonia.

Diseases of the Digestive System.—The rate of admissions is 208·3, and that of deaths is 5·57 per 1,000 of the strength. Compared with the corresponding rates for the non-commissioned officers and men, the first is 14·3 per 1,000 lower, the last is 2·42 higher; this excess in the rate of mortality for diseases of the digestive system, may perhaps be accounted for by the fact that the wives of soldiers are comparatively seldom invalided. There were 76 admissions for abortion. Three deaths were consequent on the puerpural state; 8 deaths occurred during child-birth, of which there were 912 cases (not included amongst the admissions for disease).

Under the head of *General Debility*, 771 admissions are returned, with 4 deaths.

Children.

The average annual strength of the children of the non-commissioned officers and men was 7,141, amongst whom there were 5,791 admissions into hospital, and (in the Command) 520 deaths, being in the rate of 810·9 and of 72·82 per 1,000 of the strength respectively (the death-rate for persons presumably of the same ages in England, on an average of 10 years is 27·22 per 1,000).

The admissions for diseases of the *febrile group* (1,914) are in the rate of 268·3, and the deaths (131) in that of 18·34 per 1,000 of the strength.

Eruptive Fevers.—For small-pox, there were 2 admissions, for chicken-pox 36, for measles 404 (36 of the attacks being fatal), for dengue 3.

Contiuued Fevers.—Only 1 admission for enteric fever is returned; for simple continued fever there were 280 admissions (9 of the attacks being fatal); for febricula 163 admissions.

Paroxysmal Fevers.—For ague there were 686 admissions (2 deaths); for remittent fever 134 admissions (26 deaths).

Cholera.—This disease caused 67 admissions, and 51 deaths, being in the proportions of 9·4, and of 7·14 per 1,000 of the strength respectively.

Other Diseases.—Diphtheria caused 1 admission, and 1 death. Whooping-cough caused 110 admissions and 5 deaths.

Diseases of the Constitutional Group.—The admissions for diseases of this group (169) are in the rate of 23·7, the deaths (18) in that of 2·52 per 1,000 of the strength.

Scrofula and Phthisis.—These diseases caused 47 admissions and 16 deaths. Only 4 admissions are returned for pulmonary consumption; no death was due to this disease, but for mesenteric disease there were 24 admissions and 10 deaths. One death was also due to tubercular meningitis.

Anæmia caused 105 admissions and 2 deaths.

Diseases of the Nervous System.—There were 14 admissions and 7 deaths from encephalitis; sunstroke caused 17 admissions and 11 deaths; hydrocephalus caused 3 deaths; tetanus caused 2 admissions and 2 deaths; convulsions caused 101 admissions and 75 deaths.

Diseases of the Eye.—The admissions for conjunctivitis (1,034) are in the rate of 144·8 per 1,000 of the strength.

Diseases of the Respiratory System.—Croup caused 46 admissions and 9 deaths; bronchitis caused 266 admissions and 27 deaths; pneumonia caused 14 admissions and 4 deaths.

Diseases of the Digestive System, caused 1,357 admissions and 174 deaths, being in the rates of 190·3, and of 24·37 per 1,000 of the strength respectively. 226 of the admissions in this order, are returned as due to teething (with 40 deaths); tonsilitis caused 1 death, enteritis caused 2 admissions, both of the cases were fatal; dysentery caused 159 admissions and 19 deaths; for diarrhœa 785 admissions and 107 deaths are returned; only 8 admissions for hepatitis took place; for jaundice there were 12 admissions (2 deaths); the admissions for general debility were 503, and the deaths for this condition were 46 in number.

II.—MADRAS.

STATISTICAL REPORT.

Madras.

THE average annual strength of the European troops serving in the Command was 11,233 non-commissioned officers and men, the admissions into hospital among them were 12,067, the deaths, including those of invalids on the voyage and after arrival at home, were 178, the average number of daily sick in hospital was 619·25. The proportions given by these numbers are—for admissions, 1074·2, for deaths, 15·83, and for daily sick 55·13 per 1,000 of the strength. Compared with the preceding year, the proportion of admissions is 47·7 per 1,000 lower, whilst that of deaths is 2·10 per 1000 higher; the average number of daily sick is fractionally less.

The following Table shows the admissions and deaths in the different classes orders of diseases:—

Orders.	Diseases.	Strength, 11,233.				Ratio per 1,000 of Mean Strength.			
						1875.		1869–74.	
			Deaths.						
		Admitted.	In the Command.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group ..	2,234	16	..	16	198·8	1·42	242·2	4·02
2	Constitutional " ..	1,718	20	7	27	152·9	2·40	160·3	2·02
	II. *Local Diseases.* Diseases of the—								
1	Nervous System ..	150	12	..	12	13·3	1·07	20·8	2·09
2	Eye	157	..	..	..	14·0	..	20·7	..
3	Ear	74	..	..	..	6·6	..	9·9	..
4	Nose	..	..	..	..	..	..	·5	..
5	Circulatory System ..	235	22	1	23	20·9	2·05	18·7	1·99
6	Absorbent " ..	272	..	..	..	24·2	..	25·5	..
8	Respiratory " ..	412	4	2	6	36·7	·53	44·7	·56
9	Digestive " ..	3,308	57	3	60	294·8	5·34	348·3	7·47
10	Urinary " ..	1,008	1	..	1	89·7	·09	78·9	·18
11	Generative " ..	172	..	..	..	15·3	..	15·4	..
12	Organs of Locomotion	44	..	..	..	3·9	..	5·5	·05
13	Cellular Tissue ..	168	..	1	1	14·9	·09	17·5	..
14	Cutaneous System ..	718	..	..	..	63·9	..	87·3	..
	III. *Conditions, &c.*								
	Debility	293	..	1	1	26·1	·09	38·5	·06
	IV. *Poisons* ..	64	7	..	7	5·7	·62	9·4	·47
	V. *Injuries.*								
2	Accidental	1,009	15	..	15	89·8	1·33	105·8	1·14
3	Homicidal	..	..	..	..	..	..	·1	·06
4	Self-inflicted	4	8	..	8	·3	·71	·2	·47
5	Judicial	..	1	..	1	..	·09	..	·03
	VI. *Surgical Operations*	12	..	..	..	1·1	..	·3	..
	Cause unknown ..	..	..	..	..	..	..	..	·02
	No appreciable disease	15	..	..	..	1·3	..	·9	..
	Total	12,067	163	15	178	1074·2	15·83	1251·4	20·63
	Average of 10 years, 1865–74	..	..	..	..	1326·0	21·85	..	..

Madras.

General Diseases.—The rate of prevalence and also that of mortality of diseases in this class exceeds that of 1874, the former by 2·5, the latter by ·19 per 1,000 men; the whole of the increased rate of prevalence occurs in the *febrile group*, in the *constitutional group*, the rate is lower; but as regards mortality the position of the two groups is reversed; in the febrile, with a higher rate of prevalence of disease, there is a fractionally lower rate of deaths, whilst in the constitutional, with a lower rate of admissions than in 1874, there is a fractionally higher death-rate.

The admissions and deaths from the principal diseases of this class are shown in the following Table:—

General Diseases.	Admitted.	Died.	Ratio per 1,000 of Mean Strength.			
			1875.		1869–74.	
			Admitted.	Died.	Admitted.	Died.
Febrile—						
Eruptive Fevers	16	..	1·4	..	1·3	·11
Continued „	1,338	9	119·1	·80	118·0	1·54
Paroxysmal „	839	2	74·7	·18	115·6	·47
Cholera	7	4	·6	·36	3·3	1·77
Influenza	27	..	2·4	..	1·3	..
Erysipelas	5	..	·4	..	2·2	·08
Other Diseases of this group.	2	1	·2	·09	·5	·05
Total	2,234	16	198·8	1·43	242·2	4·02
Constitutional—						
Rheumatism	342	..	30·4	..	42·1	·02
Syphilis	1,215	6	108·2	·53	98·7	·17
Scrofula, Phthisis, &c. ..	121	19	10·8	1·69	13·0	1·62
Scurvy and Purpura ..	3	..	·3	..	·5	·02
Anæmia	30	..	2·7	..	5·1	..
Other Diseases of this group.	7	2	·6	·18	·9	·20
Total	1,718	27	153·0	2·40	160·3	2·03

Eruptive Fevers, were a little more prevalent than in 1874; of the admissions, three were on account of small-pox, two for chicken-pox, and 11 for measles.

Continued Fevers.—The rate of admissions exceeds that of the preceding year by 1·5, but with this is associated a death-rate lower by ·32 per 1,000 men.

Paroxysmal Fevers.—The rate of admissions exceeds that of the preceding year by 9·7 per 1,000 men.

Cholera.—This disease was epidemic amongst the civil population in certain districts in the Command, but it was only seen in a sporadic form amongst the troops, and occasioned seven admissions.

Rheumatism.—Compared with the preceding year, there is a decrease of 9·8 per 1,000 men.

Syphilis.—The rate of admissions is fractionally higher than that of 1874; the rate of deaths is ·26 per 1,000 higher, and it exceeds the average rate to the same extent; the increase in the mortality consequent on this disease may perhaps be due rather to the more accurate pathological knowledge gained in late years than to the more fatal nature of syphilis in the present time.

Scrofula, Phthisis, &c.—The rate of prevalence is only fractionally higher than that of the preceding year, but the rate of mortality is ·57 per 1,000 men higher.

Anæmia.—The fractional difference in the rate of prevalence of this disease in the two years is in favour of the present.

Madras.

LOCAL DISEASES.—*Diseases of the Nervous System.*—The rate of admissions for diseases in this order is 5·9 per 1,000 men lower than that of the preceding year; the rate of deaths, however, is only fractionally lower; this want of proportion between the two results is due to the circumstance that the decrease in the prevalence mainly took place in neuralgia, and in epilepsy—diseases which are not usually fatal. The admissions for sunstroke were the same in number in both years.

Diseases of the Eye.—The rate of admissions is fractionally less than that of 1874.

Diseases of the Circulatory System, were less prevalent, but were more fatal, than in the preceding year; the decrease in the rate of admissions is 4·3, the increase in the rate of deaths is ·76 per 1,000 men.

Diseases of the Respiratory System.—The rate of prevalence is 12·2 per 1,000, or one-fourth lower than the corresponding rate of 1874; the rate of deaths is about the same for both years.

Diseases of the Digestive System.—The rate of admissions is lower than that of the preceding year by 24· per 1,000 men, and in consonance with the decreased prevalence, the rate of deaths is ·19 per 1,000 men lower. An increased prevalence of some diseases took place, the most important being tonsillitis, dyspepsia, and diarrhœa; the reduction in prevalence of the whole order was mainly due to that in dysentery and in hepatitis; the rate of admissions for the first-named disease is 15·8 per 1,000 men lower than the corresponding rate for 1874, and the rate of admissions for hepatitis is 18·7 per 1,000 men lower. The rates of mortality for the diseases named in the present, and in the preceding year, are not in correspondence with that of prevalence.

Diseases of the Urinary System.—The rate of admissions for diseases of this nature is 13·1 per 1,000 men higher than the corresponding rate for 1874.

CONDITIONS, &c.—*Debility.*—A reduction of 2· per 1,000 men on the rate of the preceding year, is in accordance with the reduced rate of admissions for anæmia, before noticed.

POISONS.—The rate of admissions is nearly double, and the death-rate is nearly seven times higher, than the corresponding rate of the preceding year; of the deaths, four were due to alcohol poisoning, two to delirium tremens, and one to snake bite.

INJURIES.—*Accidental.*—The rate of admissions is a little lower than that of 1874, but the injuries received ended oftener in death; drowning caused 13 deaths, and two were due to fractures. *Self-inflicted Injuries,* were much more frequent than in the preceding year; of the suicidal deaths, three were by gun-shot, one resulted from a multiple injury, one from fracture, one from cut throat, and drowning was the mode of death in two instances.

In the following Table, taken from the report of the Principal Medical Officer, the admissions and deaths at each of the principal stations in the Command are shown:—

Madras.

Stations.		Average Strength.	Average Daily Sick.	Admitted.	Died.	Invalided	Ratio per 1,000 of Strength.					
							Average Daily Sick.	Admitted.	Died.	Invalided.	Average of previous period of 8 years.	
											Admitted.	Died.
PRESIDENCY.	Fort St. George	516	35	613	6	56	67·83	1187·98	11·63	108·53	1434·64	22·04
	Palaveram ...	31	1	16	1	...	32·26	516·13	32·26	...	503·70	10·79
	St. Thomas's Mt.	367	25	473	9	13	68·12	1288·83	24·52	35·42	1281·06	22·36
	Trichinopoly ...	278	24	309	7	16	86·33	1111·51	25·18	57·55	1388·96	15·59
	Bellary... ...	907	49	987	8	11	54·02	1088·20	8·82	12·13	1141·46	9·54
	Total ...	2,099	134	2,398	31	96	63·84	1142·45	14·77	45 74	...	...
MYSORE.	Bangalore ...	1,668	93	1,667	18	86	55·76	999·40	10·79	51·56	1263·15	12·41
	Cannanore ...	610	34	622	3	60	55·74	1019·67	4·92	98·36	1220·40	18·24
	Calicut... ...	99	7	122	...	16	70·71	1232·32	...	161·62	1044·75	17·20
	Malliapoorum ...	96	3	55	...	7	31·25	572·92	...	72·92	1022·36	17·41
	Total ...	2,473	137	2,466	21	169	55·40	997·17	8·49	68·34	...	...
HYDERABAD.	Secunderabad...	2,289	116	2,536	40	183	50·67	1107·91	17·47	79·95	1301·15	28·04
	Kamptee ...	1,005	61	1,598	13	37	60·70	1590·05	12·93	36·82	1750·97	16·81
	Seetabuldee ...	46	1	58	...	...	21·74	1260·87	...	...	1551·52	10·72
	Total ...	3,340	178	4,192	53	220	53·29	1255·09	15·87	65·87	...	...
BURMAH.	Rangoon ...	775	40	782	9	37	51·61	1009·03	11·61	47·74	1327·67	12·60
	Thayetmyo ...	680	20	538	5	19	29·41	791·18	7·35	27·94	1301·53	24·40
	Tonghoo ...	471	30	628	6	28	63·69	1333·33	12·74	59·45	915·63	16·19
	Bassein... ...	29	...	15	1	...	...	517·24	34·48	...	...	...
	Port Blair ...	127	4	91	1	1	31·50	716·53	7·87	7·87	948·12	11·42
	Total ...	2,082	94	2,054	22	85	45·15	986·55	10·57	40·83	...	...
DEPOTS.	Poonamallee ...	196	50	476	16	3	255·10	2428·57	81·63	15·31	2851·52	59·57
	Wellington ...	503	25	377	6	17	49·70	749·50	11·93	33·80	1323·26	13·73
	Ramandroog ...	41	2	52	1	3	48·78	1268·29	24·39	73·17	1317·45	11·87
	Total ...	740	77	905	23	23	104·05	1222·97	31·08	31·08	...	...
ON THE MARCH		271	7	50	13*	...	25·83	184·50	47·97	...	587·39	22·28

* Includes 7 deaths, which took place at Colaba, Sholapore, Deolalie, and Poona.

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For the Presidency Division, the rate of admissions is 110·9 per 1,000 men lower than that of the preceding year, and the rate of daily sick is also a little lower; on the other hand, the death and invaliding rates are fractionally higher. For the Mysore Division, all the results of sickness are favourable; the daily sick-rate is 7·89, the admission-rate is 143·5, the death-rate is 6·52, and the invaliding-rate 6·71 per 1,000 men lower than the corresponding rate of 1874. All the stations in the Division participated in the smaller amount, and in the decreased severity of the kind of sickness in the present, as compared with the preceding year, but the greatest improvement was that shown at Cannanore, which contributed more to the lower rates for the whole Division than all the other stations in it. The death-rate for Cannanore in the present year, is only one-fifth of that of 1874; this reduction is in harmony with the result, so generally noticed, of the succession of a low rate of mortality to the high rate accompanying the epidemic prevalence of sickness of a dangerous kind. For the Hyderabad Division, all the results of sickness are unfavourable as compared with those of the preceding year; the death-rate is 5·88 and the invaliding-rate is 2·25 per 1,000 men higher than in 1874. The excess of sickness in the Division was confined to one station—Secunderabad. For the Burmah Division, all the results of sickness are unfavourable as compared with the preceding year, but the excess is not very considerable, except in the instance of the invaliding, the rate of which exceeded the proportion for 1874 by 12·99 per 1,000 men.

The admissions and deaths in each class and order of diseases in each of the Military Divisions are shown in the following Tables:—

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	Divisions	Presidency.		Mysore.		Hyderabad.		Burmah.		Depôts.		On the March.		Presidency.		Mysore.		Hyderabad.		Burmah.		Depôts.		On the March.	
	Average Strength	2,099		2,473		3,340		2,082		740		271		Annusl Ratio per 1,000 of Strength.											
Orders.	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*																								
1	Febrile Group	582	4	339	...	900	9	262	3	134	...	4	...	277·27	1·91	137·08	...	269·46	2·69	125·84	1·44	181·08	...	14·76	...
2	Constitutional ,, ...	407	4	318	...	549	5	224	1	204	8	8	1	193·90	1·91	128·59	...	164·37	1·50	107·59	·48	275·67	10 81	29·52	3·69
	II. *Local Diseases.* Diseases of the—																								
1	Nervous System	28	3	37	3	54	4	12	1	20	1	2	...	13·34	1·43	14·96	1·21	16·17	1·20	5·76	·48	27·03	1·35	7·38	...
2	Eye	33	...	65	...	39	...	13	...	10	...	...	...	15·72	...	26·28	...	11·68	...	6·24	...	13·51	...	...	...
3	Ear	12	...	15	...	26	...	20	...	1	...	...	...	5·72	...	6·07	...	7·78	...	9·61	...	1·35	...	...	...
5	Circulatory System	38	4	82	4	48	3	36	1	31	6	2	4	18·10	1·91	33·15	1·62	14·37	·90	17·29	·48	41·89	8·11	7·38	14·76
6	Absorbent ,, ...	72	...	49	...	76	...	53	...	17	...	2	...	34·30	...	19·81	...	22·75	...	25·46	...	22·97	...	7·38	...
8	Respiratory ,, ...	64	2	58	1	173	1	87	1	30	...	1	...	30·49	·95	23·45	·40	51·80	·30	41·78	·48	40·54	...	3·69	...
9	Digestive ,, ...	483	7	703	8	1,112	23	699	7	300	8	15	4	230·11	3·33	284·27	3·23	332·93	6·88	335·73	3·36	405·41	10·81	55·35	14·76
10	Urinary ,, ...	216	...	231	...	378	1	118	...	44	...	4	...	102·91	...	93·41	...	113·17	·30	56·68	...	59·46	...	14·76	...
11	Generative ,, ...	30	...	51	...	49	...	47	...	3	...	...	...	14·29	...	20·62	...	14·67	...	22·57	...	4·05	...	...	...
12	Organs of Locomotion ...	6	...	12	...	11	...	4	...	8	...	1	...	2·86	...	4·85	...	3·29	...	1·92	...	10·81	...	3·69	...
13	Cellular Tissue	34	...	36	...	61	...	31	...	7	...	3	...	16·20	...	14·56	...	18·26	...	14·89	...	9·46	...	11·07	...
14	Cutaneous System	172	...	170	...	194	...	151	...	28	...	2	...	81·94	...	68·74	...	58·08	...	72·52	...	37·84	...	7·38	...
	III. *Conditions, &c.*																								
	Debility	44	...	56	...	106	...	63	...	35	...	1	...	20·96	...	22·65	...	31·74	...	30·26	...	47·29	...	3·69	...
	IV. *Poisons*	5	...	8	...	17	2	32	5	2	...	1	...	2·38	...	3·23	...	5·09	·60	15·37	2·40	2·70	...	3·69	...
	V. *Injuries.*																								
2	Accidental	169	3	225	3	390	4	195	2	31	...	4	3	80·51	1·43	90·98	1·21	116·77	1·20	93·66	·96	41·89	...	14·76	11·07
3	Homicide	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	·40	...	...	...	...	...	...	...	...
4	Self-inflicted	2	4	1	...	...	1	2	1	...	...	...	1	·95	1·91	0·40	...	...	·30	·96	·48	...	...	...	3·69
5	Judicial	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	·40	...	...	...	...	...	...	...	...
	VI. *Surgical Operations*	1	...	4	...	3	...	4	...	...	...	...	...	·48	...	1·62	...	·90	...	1·92	...	...	...	...	...
	No appreciable disease ...	...	...	6	...	6	...	1	...	...	...	...	...	...	...	2·43	...	1·80	...	·48	...	...	...	...	...
	Total	2,398	31	2,466	21	4,192	53	2,054	22	905	23	50	13	1142·43	14·78	997·15	8·47	1255·08	15·87	986·53	10·56	1222·95	31·08	184·50	47·97

Divisions	Presidency.		Mysore.		Hyderabad.		Burmah.		Depôts.		On the March.		Presidency.		Mysore.		Hyderabad.		Burmah.		Depôts.		On the March.	
Strength...	2,099		2,473		3,340		2,082		740		271		Annual Ratio per 1,000 of Mean Strength											
General Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted	Died.	Admitted.	Died.	Admitted.	Died.
Febrile—																								
Eruptive Fevers ...	1	...	1	...	9	...	4	...	1	...	...	...	·5	...	·4	...	2·7	...	1·9	...	1·3	...	...	...
Continued ,, ...	513	...	170	...	392	7	162	2	91	...	1	...	244·4	...	68·8	...	117·4	2·10	77·8	·96	123·0	...	3·7	...
Paroxysmal ,, ...	40	...	165	...	493	1	92	1	42	...	3	...	19·0	...	66·7	...	147·6	·30	44·2	·48	56·8	...	11·1	...
Cholera	5	4	...	...	1	...	1	...	...	...	...	...	2·4	1·91	...	...	·3	...	·5	...	...	...	...	...
Influenza	23	...	1	...	2	...	1	...	...	...	...	...	11·0	...	·4	...	·6	...	·5	...	...	...	...	...
Erysipelas	...	...	1	...	2	...	2	...	...	...	...	...	...	...	·4	...	·6	...	1·0	...	...	...	...	...
Other Diseases of this Group	...	...	1	...	1	1	...	...	...	...	...	...	...	...	·4	...	·3	·30	...	...	...	...	...	...
Total of Febrile Group ...	582	4	339	...	900	9	262	3	134	...	4	...	277·3	1·91	137·1	...	269·5	2·70	125·9	1·44	181·1	...	14·8	...
Constitutional—																								
Rheumatism	65	...	93	...	99	...	50	...	31	...	...	...	31·0	...	37·6	...	29·6	...	24·0	...	41·9	...	...	...
Syphilis	320	...	196	...	402	1	143	...	143	3	8	1	152·5	...	79·3	...	120·4	·30	68·7	...	193·2	4·05	29·5	3·69
Scrofula, Phthisis, &c.	16	4	17	...	34	4	26	...	25	5	...	...	7·6	1·91	6·9	...	10·2	1·20	12·5	...	33·8	6·76	...	...
Scurvy and Purpura ...	...	...	1	...	2	...	...	...	...	...	...	...	...	...	·4	...	·6	...	...	...	...	...	...	...
Anæmia	4	...	11	...	10	...	3	...	3	...	...	...	1·9	...	4·4	...	3·0	...	1·4	...	4·1	...	...	...
Other Diseases of this Group.... ...	2	...	...	...	2	...	2	1	2	...	...	...	·9	...	...	...	·6	...	1·0	·48	2·7	...	...	...
Total of Constitutional Group	407	4	318	..	549	5	224	1	204	8	8	1	198·9	1·91	128·6	...	164·4	1·50	107·6	·48	275·7	10·81	29·5	3·69

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General Diseases.—The rate of prevalence of diseases of this class is higher in the Presidency, the Burmah, and the Hyderabad Divisions, and lower in Mysore, than in the preceding year; in the Hyderabad Division the increase amounts to 29·56 per 1,000 men. With respect to the two groups of which this class is composed, *diseases of the febrile group*, are in a higher rate than in 1874 in the Presidency, and in the Hyderabad, and in a lower in the remaining Divisions; the difference in the proportion in the two years however is not considerable in any instance. *Diseases of the constitutional group*, are in a lower rate in every Division except the Burmah. The rate of deaths from *febrile diseases*, exceeds that of the preceding year in the Presidency and in the Hyderabad Divisions, and is the same in Burmah; the rate of deaths from *constitutional diseases*, followed a parallel course, being greater in the Presidency, and in the Hyderabad, and exactly the same in the Burmah Division, whilst in Mysore, no death from diseases in either group occurred in the present year.

Eruptive Fevers.—Admissions for fevers of this kind occurred in each Division; but the greatest prevalence was in Hyderabad, the majority of them being from measles at Kamptee.

Continued Fevers.—The rate of admissions for fevers of this nature, is greater than in the preceding year for the Presidency, and the Hyderabad, and less for the remaining Divisions. The prevalence of these fevers in the Presidency, greatly exceeded that in every other Division; this was chiefly due to the prevalence of *simple continued fever* in the 48th Regiment at Bellary, and in the 89th Regiment at Madras.

Enteric Fever.—The prevalence of this disease is in a lower rate than in 1874 in every Division except the Hyderabad.

The stations in the Divisions at which there were admissions for enteric fever, and the months in which they occurred, are shown in the following Table, taken from the Report of the Principal Medical Officer of the Command:—

Stations.		Admissions for Enteric Fever.												Total.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Madras	Admitted	1	..	..	..	..	..	..	..	..	..	..	..	1
	Died	..	..	..	..	..	..	..	..	..	..	..	..	..
Bangalore	Admitted	..	..	..	1	1	..	..	..	..	..	..	..	2
	Died	..	..	..	..	..	..	..	..	..	..	..	..	..
Cannanore	Admitted	1	..	..	3	..	..	..	..	..	..	..	..	4
	Died	..	..	..	..	..	..	..	..	..	..	..	..	..
Secunderabad	Admitted	..	..	..	..	..	1	2	3	2	..	1	1	10
	Died	..	..	..	..	..	1	..	..	1	1	..	..	3
Kamptee	Admitted	..	..	..	..	..	2	..	..	..	..	..	..	2
	Died	..	..	..	..	..	1	1	..	..	..	..	..	2
Thayetmyo	Admitted	1	..	..	..	..	..	..	1	..	..	..	..	2
	Died	1	..	..	..	..	..	..	..	..	..	..	..	1
Port Blair	Admitted	1	..	..	..	..	..	..	..	..	..	..	..	1
	Died	..	1	..	..	..	..	..	..	..	..	..	..	1
Wellington	Admitted	..	..	..	..	..	1	..	..	..	..	..	..	1
	Died	..	..	..	..	..	..	..	..	..	..	..	..	..

In the following Tables, which are also taken from the report of the Principal Medical Officer, the ages and the periods of residence in India, of those attacked by enteric fever are shown:—

Ages.	Number admitted for Enteric Fever.	Number of Deaths from Enteric Fever.
19 to 20	..	..
20 to 21	1	..
21 to 22	6	1
22 to 23	3	1
23 to 24	3	2
24 to 25	2	1
25 to 26	..	..
26 to 27	1	..
27 to 28	4	1
30 to 31	1	..
37 to 38	1	..
40 to 41	1	1
Total	23	7

Service in India.	Number admitted for Enteric Fever.	Number of Deaths from Enteric Fever.
Under 1 year	1	..
1 to 2 years	3	1
2 to 3 „	10	2
3 to 4 „	1	1
4 to 5 „	5	3
6 to 7 „	1	..
10 years and over	2	..
Total	23	7

Paroxysmal Fevers.—Compared with the preceding year, the rate of admissions for fevers of this kind is lower in the Presidency, Hyderabad, and in the Burmah, but is higher in the remaining Divisions; the prevalence of paroxysmal fevers in the Presidency Division, was much less than that in any other—a circumstance which may have relation to the high rate of prevalence of continued fevers in it.

Cholera.—Five of the seven admissions for cholera occurred in the Presidency Division, three at Madras—in the 89th Foot 2, and in the A Battery 20th Brigade, Royal Artillery, 1—two at Trinchinopoly, in the D Battery 9th Brigade, Royal Artillery. One admission occurred at Secunderabad, in the Hyderabad Division, in the 44th Foot; and one at Toughoo, in the Burmah Division, in the 6th Battery 5th Brigade, Royal Artillery.

Rheumatism.—The prevalence of this disease was less than in the preceding year in every Division, except the Presidency.

Syphilis.—The rate of admissions exceeded that of 1874 in the Hyderabad Division by 3·38, and in the Burmah by 7·13 per 1,000 men; but in the Presidency, and in Mysore, the reduced rates of admission more than counterbalanced the increase in the first-named Divisions; the decrease on the rate of 1874 for the Presidency amounts to 12·17, and for Mysore to 23·78 per 1,000 men.

Scrofula, Phthisis, &c.—The prevalence of diseases of this nature is in a lower rate for the Presidency, and for the Mysore, but in a higher rate for the remaining Divisions. For Depôts the rate is much lower.

LOCAL DISEASES.—*Diseases of the Nervous System.*—The rate of admissions is lower than that of the preceding year for every Division except the Presidency; the reduction amounts to one-half in the instance of the Burmah, and to one-third in that of the Mysore Division; the prevalence of diseases of this kind at Depôts was also much lower than in 1874.

Diseases of the Eye.—A comparison of the proportional prevalence in the present, and the preceding year, of the diseases in this order shows that whilst

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the rate of admissions is higher for all Divisions except the Hyderabad, this result is balanced by the large reduction at Depôts.

Diseases of the Circulatory System.—The rate of admissions is higher than in the preceding year for the Hyderabad Division, but lower for the others; the rate for Depôts is much lower; the death-rate for diseases of this kind at Depôts, is much higher than in 1874.

Diseases of the Respiratory System.—The rate of admissions is lower for every Division except Burmah, than that of the preceding year, and it is also lower for Depôts; the rate of deaths is higher for every Division; no deaths occurred at Depôts. From these results, it would seem probable that in the present year, the invalids suffering from dangerous diseases of the respiratory system, were more frequently kept with their regiments than transferred to Depôts.

Diseases of the Digestive System.—The rate of admissions for diseases in this order is lower in the Presidency and the Mysore, and higher in the remaining Divisions; the rates of the Hyderabad, and the Burmah Divisions, materially exceed those of the others; the rate for Depôts is lower. All the Divisions, except Hyderabad, have lower death-rates for diseases of the digestive system, than in 1874; that of Depôts, however, is higher.

The relative prevalence of certain of the diseases of this order, in each Division of the Command, is shown in the following Table, which is taken from the Report of the Principal Medical Officer:—

	Ratio per 1,000 of the Strength											
Circles.	Presidency.		Mysore.		Hyderabad.		Burmah.		Depôts.		Troops on the March.	
Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died	Admitted.	Died.
Dysentery	28·59	1·91	61·06	·40	65·27	2·10	99·42	·96	137·84	2·70	33·21	3·69
Diarrhœa	39·54	·48	35·18	...	78·74	...	56·20	...	47·29	...	3·69	...
Hepatitis, including abscess of liver ...	51·45	·95	59·85	2·83	63·17	4·19	70·12	2·40	141·89	8·11	3·69	3·69
Total	119·58	3·34	156·09	3·23	207·18	6·29	225·74	3·36	327·02	10·81	40·59	7·38
Dyspepsia	73·84	...	80·07	...	66·17	...	73·49	...	56·76	...	3·69	...

Taking the three diseases—dysentery, diarrhœa, and hepatitis—together, as being probably only different manifestations from the same originating cause, it is seen that in the present year the rate of prevalence is lower than that of 1874 for all Divisions, except Hyderabad, and lower also for Depôts. For the Mysore, the reduction amounts to 63·8 per 1,000 men; the increase for Hyderabad amounts to 24·6 per 1,000. With diminished prevalence in the three Divisions, there was also a smaller mortality; in the Hyderabad Division a greater mortality accompanied the greater prevalence of the three diseases; the mortality for Depôts is also greater.

Diseases of the Urinary System.—The prevalence of diseases in this order is less in the Presidency than in the preceding year, but greater in all the other Divisions.

Poisons.—Compared with the preceding year, the rate of admissions for diseases of this class, is almost the same in the Presidency, and in the Mysore, and is higher in the Hyderabad, and in the Burmah Divisions, the rate of the last-named being nearly twice that of 1874. One of the deaths in the Hyderabad Division, was due to snake bite; the particular kind of snake causing it was not ascertained.

Injuries.—*Accidental.*—The rate of admissions is lower than that for the preceding year in the Presidency and in the Mysore, but is higher in the other Divisions.

Certain of the results of sickness for each Corps serving in the Command are shown in the following Table.—

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Corps.	Average Annual Strength.	Admitted into Hospital.	Died in the Command, at sea, and at home.	Invalided.	Average Number of Daily Sick.	Ratio per 1,000 of Strength of				Average sick time to each soldier.	Average duration of each case of sickness.	Stations.
						Admissions into Hospital.	Deaths.	Invalided.	Daily Sick.			
CAVALRY.										Days.	Days.	
16th Lancers	461	401	7	27	21·97	869·8	15·18	58·56	47·65	17·39	20·00	Secunderabad, 12 months.
18th Hussars .. .. (From 1st Jan. to 14th Dec.)	406	471	7	12	24·86	1160·1	17·24	29·56	61·23	22·35	19·26	Bangalore, 11½.
Total Cavalry.. ..	867	872	14	39	46·83	1005·7	16·15	44·98	54·01	19·72	19·60	
ARTILLERY.												
B Batt., C Brig., R.H.A. ..	166	211	6	15	12·30	1451·8	36·14	90·36	74·10	27·04	18·63	Secunderabad, 12 months.
C " " " ..	170	291	6	13	20·52	1711·8	35·29	76·47	120·70	44·06	25·74	Bangalore, 12.
1st Batt., 5th Brig., R.A. ..	85	79	2	6	4·62	929·4	23·55	70·59	54·35	19·84	21·34	Cannanore, 12.
2nd " " " ..	92	88	2	2	3·35	956·5	21·74	21·74	36·41	13·29	13·89	Rangoon, 1½; Secunderabad, 10.
4th " " " ..	93	113	2	3	3·16	1215·1	21·51	32·26	33·98	12·40	10·21	Tonghoo, 1½; Madras, 9½.
5th " " " ..	92	96	1	2	5·38	1043·5	10·87	21·74	58·48	21·34	20·45	Secunderabad, 2¼; Rangoon, 9.
6th " " " ..	87	139	6	1	6·45	1597·7	68·97	11·49	74·14	27·06	16·93	Rangoon, 2½; Tonghoo, 9.
7th " " " ..	98	153	5	12	7·29	1561·2	51·02	122·45	74·39	27·15	17·39	Tonghoo, 11¾.
7th Batt., 6th Brig., R.A.. ..	85	76	2	5	3·47	894·1	23·53	58·82	40·82	14·90	16·66	Madras, 1; Rangoon, 10¾.
A Batt., 9th " " ..	158	199	4	7	10·59	1259·5	25·32	44·30	67·02	24·49	19·42	Secunderabad, 12.
C " " " " ..	158	173	4	11	11·46	1094·9	25·32	69·62	72·53	26·47	24·18	Bangalore, 12.
D " " " " .. (From 10th Mar. to 31st Dec.)	141	181	5	..	12·50	1283·7	35·46	..	88·65	32·35	25·21	Trichinopoly, 9½.
G Batt., 9th Brig., R.A. ..	164	117	2	4	7·25	713·4	12·19	24·39	44·21	16·13	22·62	Thayetmyo, 12.
A Batt., 20th Brig., R.A.. ..	161	162	5	4	9·00	1006·2	31·05	24·84	55·90	20·40	20·28	Madras, 12.
B " " " ..	160	108	1	2	5·97	675·0	6·25	12·50	37·31	13·62	20·18	Bellary, 12.

Madras.

Corps.	Average Annual Strength.	Admitted into Hospital.	Died in the Command, at sea, and at home.	Invalided.	Average Number of Daily Sick.	Ratio per 1,000 of Strength of				Average sick time to each soldier.	Average duration of each case of sickness.	Stations.
						Admitted into Hospital.	Deaths.	Invalided.	Daily Sick.			
										Days.	Days.	
C Batt., 20th Brig., R.A. ..	165	236	4	2	12·42	1430·3	24·24	12·12	75·27	27·47	19·21	Madras, 12 months.
D " " " ..	159	147	1	7	8·01	924·5	6·29	44·03	50·38	18·39	19·89	Bangalore, 12.
E " " " ..	151	235	2	7	8·60	1526·0	13·00	45·45	55·85	20·38	13·36	Kamptee, 12.
F " " " ..	159	261	6	3	13·83	1641·5	37·74	18·87	87·00	31·75	19·34	Secunderabad, 12.
G " " " ..	163	251	1	3	9·99	1558·3	6·13	18·40	61·29	22·37	14·36	Kamptee, 12.
Details of Royal Artillery .	20	10	1	2	·30	500·0	50·00	100·00	..	..	..	
Total Artillery	2,730	3,359	68	111	176·46	1230·4	24·91	40·66	64·64	23·59	19·17	
INFANTRY.												
1st Battalion, 21st Foot ..	861	811	10	67	42·63	941·9	11·60	77·82	49·51	18·07	19·19	Madras, 2; Rangoon, 10.
33rd Foot .. .. .. (From 6th to 31st Dec)	68	65	1	..	1·73	955·9	14·71	..	25·44	9·29	9·71	Kamptee, ¾.
43rd Foot	879	842	1	78	45·16	957·9	1·14	88·74	51·38	18·75	19·58	Cannanore, 10; Bellary, 1.
44th "	793	1,244	11	25	47·04	1568·7	13·87	31·53	59·32	21·65	13·80	Kamptee, 11; Secunderabad, 1; Det. at Sitabaldi.
45th "	877	702	10	34	37·09	800·5	11·40	38·77	42·34	15·45	19·28	Rangoon, 2⅓; Bangalore, 9⅓
48th "	880	948	11	14	50·11	1077·3	12·50	15·91	56·94	20·78	19·29	Bellary, 11⅓; Cannanore, ⅓.
67th "	919	950	11	40	48·21	1033·7	11·97	43·52	52·46	19·15	18·52	Thayetmyo, 12; Wing at Tonghoo, 12.
76th "	755	777	17	70	35·90	1029·1	22·52	92·72	47·55	17·35	16·86	Secunderabad, 12.
89th "	875	857	13	49	54·86	979·4	14·86	56·00	62·70	22·88	23·36	Bangalore, 1; Madras, 10.
107th " .. .. .. (From 1st Jan. to 27th Nov.)	703	640	11	65	30·27	910·4	15·65	92·46	43·06	15·72	17·26	Secunderabad, 11.
Total Infantry	7,610	7,836	96	442	393·00	1029·7	12·61	58·08	51·64	18·85	18·31	

Madras.

The health results in the Cavalry, are more favourable than those of Royal Artillery, but are less so than those of Infantry; the feature of a lower rate of admissions loses importance by its association with a long average sick time to each soldier, and a long average duration of cases of sickness; and whilst the ineffectiveness due to sickness, was a little in excess of the average of the three arms, the intensity of the kind of sickness (as shown by the death-rate) was also somewhat above the average.

The results in the Royal Artillery, are the least favourable of those of the three arms, except that the invaliding rate is lower than that of Infantry.

Compared with the other arms, Infantry, shows a lower rate of prevalence of sickness and of ineffectiveness from it, as measured by the duration of each case of sickness; the comparatively low death rate is diminished in value as an indication of the lesser intensity of the diseases affecting the men, by being associated with an invaliding rate which exceeds the average of all arms. The highest rate of admissions of any corps in the arm, is that of the 44th Foot, which exceeds the average of all arms by nearly one-third; in the preceding year also this corps had a much higher rate of admissions than any other; in both years the prevalence of malarial fever determined the result. The highest death-rate is that of the 107th Regiment, in which deaths from hepatic disease were more numerous than those from any other cause; the invaliding from this regiment was also very extensive, one-half of it being due to diseases of the digestive system.

In the following Table the relation between periods of service in the Command of the various corps, and the results of sickness in them is shown:—

Corps.	Completed years of service in the Command or in India.	Average Annual Strength.	Admitted into Hospital.	Died in and out of the Command.	Invalided.	Average Number of Daily Sick.	Ratio per 1,000 of Strength.				Average Sick Time to each Soldier.	Average duration of each case of sickness.	Date of Arrival in Command or in India.
							Admissions into Hospital.	Deaths.	Invalided.	Daily Sick.	Days.	Days.	
C Brigade, Rl. Horse Artillery	2nd	336	532	12·	28	32·82	1583·3	35·71	83·33	94·40	35·65	22·50	Jan. 1873
43rd Foot ... ... 45th ,, ... 48th ,, ... 67th ,, ...	3rd	3,555	3,442	33	166	180·78	968·2	9·28	46·69	50·85	18·56	19·17	Nov. 1872 Feb. ,, March ,, Dec. ,,
44th Foot ... ... 89th ,, ...	4th	1,668	2,101	24	74	131·90	1259·6	14·38	44·36	79·08	28·87	22·91	Oct. 1871 Nov. 1871
7th Batt., 6th Brig. Royal Artillery ... 9th Brig. Royal Artillery ... ... 1st Bn. 21st Foot ...	6th	1,567	1,557	27	94	87·90	993·5	17·23	59·99	56·09	20·47	20·60	Jan. 1869 Oct. ,, March ,,
5th Brig. Rl. Artillery	8th	547	668	18	26	30·25	1221·2	32·91	47·53	55·30	20·18	16·51	Oct. 1867
16th Lancers ... 18th Hussars ... 20th Brigade Royal Artillery ... ... 76th Foot ... ... 107th ,, ...	over 10	3,446	3,692	62	202	170·82	1071·4	17·99	58·60	49·57	18·09	16·89	Sept. 1865 ,, 1864 Formed in India. Jan. 1864 Formed in India.

The results shown in this grouping of corps are indicative of the comparative unhealthiness of the corps of the shortest service in the Command, and of the maximum healthiness being that enjoyed by corps which had completed three years, and were in their fourth year of service, but owing to the

Madras. small numbers, and the short periods, the results in the instances of the three succeeding groups are not consistent; in the last group, that of corps which had completed 10 years of service in the Command, the results are rendered unreliable from the presence in them of a large number of men who had not served 10 years in India; the same source of error obtains in all the groups, but in the first ones it is not material, it becomes however progressively more important with the longer service of the corps in the Command. By adding together the less from deaths, invaliding, &c., it will be understood that after a service of 10 years abroad, the corps must consist more largely of men who joined it with the drafts in successive years, than of those who arrived with it in the Command.

Officers.

The annual average strength of the officers serving in the Command was 398, amongst whom there were 316 cases of sickness and 11 deaths, being in the annual rates of 793·9 and of 27·64 per 1,000 of the strength.

The deaths were due to enteric fever (1), remittent fever (1), meningitis (2), abscess of brain (1), apoplexy (1), sunstroke (1), dysentery (1), hepatitis (3).

Women.

In an annual average strength of 1,461 women—the wives of the non-commissioned officers and men—there were 962 admissions into hospital, and 26 deaths (in the Command), being in the annual rates of 658·4 and of 17·80 per 1,000 of the strength respectively.

The diseases which caused the greatest number of admissions were fevers, dysentery, diarrhœa, hepatatis, dyspepsia, and general debility, to the last condition nearly one-third of the whole number were due. Included amongst the admissions are 29 cases of abortion. In addition to the admissions for disease, there were 315 for childbirth. The deaths were due to—enteric fever (2), paroxysmal fevers (4), cholera (2), acute rheumatism (1), phthisis (3), bronchitis (1), pneumonia (1), gastritis (1), dysentery (5). diarrhœa (1), hepatitis (2), debility (2). One death was consequent on the puerpural state.

Children.

In an annual average strength of 2,962 children of non-commissioned officers and men, there were 1,641 admissions into hospital and 160 deaths (in the Command), being in the annual rates of 554· and of 54·02 per 1,000 of the strength respectively. One hundred and twenty-two of the admissions were due to eruptive fevers; only one admission is returned for enteric fever, for the other kinds of continued fevers there were 173 admissions, for paroxysmal fevers 93, for cholera 6; the admissions for conjunctivitis were 274, being in the rate of 92·5 per 1,000 of the strength. (The admission rate of the men for all diseases of the eye together is only 14· per 1,000.) Dysentery, and diarrhœa, caused 263 admissions, and debility 207. The deaths were due to—measles (4), simple continued fever (4), remittent fever (1), cholera (5), scrofula and tubercular disease (8), purpura (2), meningitis (2), hydrocephalus (2), hydrophobia (1), convulsions (30), croup (2), bronchitis (6), pneumonia (1), cancrum oris (1), teething (27), tonsillitis (2), dysentery (9), diarrhœa (27), intussusception (1), hepatitis (1), general debility (14), asphyxia from overlaying (1), burn (1), congenital defects (6).

III.—BOMBAY.

Bombay.

The average annual strength of the non-commissioned officers and men of the European Troops serving in the Bombay Command, in 1875, was 10,342. The admissions into hospital among them were 14,188, being in the rate of 1371·8 per 1,000 men; the deaths, including those of invalids on the passage, or after arrival at home, were 227, being in the rate of 21·95 per 1,000 men; the average number of men in hospital daily throughout the year was 583·96, being in the rate of 56·46 per 1,000. The rates for all these results of sickness exceed the corresponding ones of the preceding year—the admission-rate, by 104·5; the death-rate, by 10·79; and the constantly sick-rate, by 6·36 per 1,000 men.

The admissions and deaths, in each class and order of diseases, are shown in the following Table:—

Order.	Diseases.	Strength, 10,342.				Ratio per 1,000 of Mean Strength.			
			Deaths.			1875.		1869–74.	
		Admissions.	In India.	Of Invalids.	Total.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group ..	5,422	88	..	88	524·3	8·51	654·9	4·54
2	Constitutional " ..	1,307	18	8	26	126·4	2·51	148·0	2·11
	II. *Local Diseases.*								
	Diseases of the—								
1	Nervous System ..	184	33	..	33	17·8	3·19	16·8	2·28
2	Eye	268	..	..	..	25·9	..	26·2	..
3	Ear	92	..	..	..	8·9	..	5·9	·02
4	Nose	7	..	..	..	·7	..	·6	..
5	Circulatory System ..	177	10	..	10	17·1	·96	12·5	1·19
6	Absorbent " ..	230	..	..	..	22·2	..	23·0	..
8	Respiratory " ..	481	9	1	10	46·5	·97	42·3	·67
9	Digestive " ..	2,512	36	4	40	242·9	3·87	217·6	3·79
10	Urinary " ..	872	2	..	2	84·3	·19	84·1	·23
11	Generative " ..	137	..	..	..	13·2	..	10·2	·02
12	Organs of Locomotion..	51	1	..	1	4·9	·10	4·5	·05
13	Cellular Tissue.. ..	187	..	..	..	18·1	..	17·9	..
14	Cutaneous System ..	764	..	..	..	73·9	..	70·9	·02
	III. *Conditions, &c.*								
	Debility..	314	..	..	..	30·4	..	18·4	·03
	IV. *Poisons* ..	91	4	..	4	8·8	·39	8·4	·28
	V. *Injuries.*								
2	Accidental	1,074	10	..	10	103·8	·97	86·6	·69
3	Homicidal	..	..	..	..	..	..	·1	·09
4	Self-inflicted	1	3	..	3	·1	·29	·2	·50
5	Judicial..	..	..	..	..	..	..	..	·08
	VI. *Surgical Operations.*	..	..	..	..	..	..	·2	·02
	No Appreciable Disease	17	..	..	..	1·6	..	·6	..
	Total ..	14,188	214	13	227	1371·8	21·95	1449·9	16·61
	Average of 10 years, 1865–74	..	..	..	..	1387·6	18·94	..	..

Bombay.

General Diseases.—The rate of prevalence of diseases in this class exceeds that of 1875 by 68·5 per 1,000 men. The whole of the increase occurs in the *Febrile Group* of diseases; in those of the *Constitutional Group*, there is a slightly lower rate of prevalence. The rate of mortality for the class is higher than that of the preceding year by 7·99 per 1,000, being nearly threefold higher. An increased rate of deaths occurs in both groups of the class, and in about the same proportion in each.

The admissions and deaths caused by the principal diseases in this class, are shown in the following Table:—

Strength	10,342.		Ratio per 1,000 of Mean Strength.			
			1875.		1869–74.	
General Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile—						
Eruptive Fevers	6	1	·6	·10	1·5	·05
Continued "	1,070	22	103·5	2·13	156·0	1·76
Paroxysmal "	4,240	9	410·0	·87	492·6	1·20
Cholera	83	54	8·0	5·22	2·1	1·45
Influenza	2	..	·2	..	·9	..
Erysipelas	15	2	1·4	·19	1·3	·02
Other Diseases of this group ..	6	..	·6	..	·4	·06
Total	5,422	88	524·3	8·51	654·8	4·54
Constitutional—						
Rheumatism.	451	1	43·6	·10	41·4	·05
Syphilis	733	1	70·9	·10	87·1	·12
Scrofula, Phthisis, &c.	75	20	7·2	1·93	10·0	1·67
Scurvy and Purpura	5	2	·5	·19	·6	·05
Anæmia	37	..	3·6	..	7·7	·06
Other Diseases of this group ..	6	2	·6	·19	1·1	·16
Total	1,307	26	126·4	2·51	147·9	2·11

Eruptive Fevers.—The admissions for fevers of this nature were 6 in number, two being for small-pox, one for chicken-pox, one for measles, and two were admissions after vaccination.

Continued Fevers.—The rate of admissions for continued fevers, exceeds that of the preceding year by 27·7 per 1,000 men, and the rate of deaths is ·81 per 1,000 higher. In a somewhat smaller strength, *Enteric Fever*, caused nine more admissions, and five more deaths than in 1874. The rate of deaths to attacks of this disease is 428·6 per 1,000; it exceeds the rate of mortality in the preceding year by 34·67 per 1,000. The admissions for *Simple Continued Fever*, were nearly twice as numerous as in the preceding year. The admissions for *Febricula*, were also somewhat more numerous.

Paroxysmal Fevers.—The rate of prevalence is 51· and that of deaths is ·11 per 1,000 men higher than the corresponding rate of the preceding year.

Cholera.—The occurrence of cholera in an epidemic form, at certain stations, was the most prominent feature in connection with the sickness in the Command in the present year; it caused 83 admissions, and 54 deaths, between the first week in May and the fourth week in October; the greatest prevalence of the disease was in the second, and third weeks of August. The last considerable outbreak of cholera amongst the troops in the Command was in 1872, when there were 42 admissions; in the succeeding year there were no admissions for this disease; in 1874 three admissions were returned. The proportion of deaths to attacks in the outbreak of the present year,

Bombay.

650·6 per 1,000, though high, is more favourable than that in the outbreak of 1872, when it was 786·71 per 1,000 attacks.

Rheumatism.—The rate of prevalence, and also that of mortality, of diseases of this kind is nearly the same as in the preceding year.

Syphilis.—Compared with 1874 there is a decrease of 18·9 per 1,000 men in the rate of admissions.

Scrofula, Phthisis, &c.—The rate of prevalence is fractionally less, but that of mortality is threefold higher than the corresponding rate of the preceding year.

Anœmia.—The rate of admissions for this disease exceeds that of 1874, but the whole number of admissions in either year is comparatively inconsiderable.

LOCAL DISEASES.—*Diseases of the Nervous System.*—The rate of admissions for diseases of this order exceeds that of the preceding year by only 1· per 1,000 men, but the rate of deaths is nearly twofold greater, a result due to the occurrence of a greater number of attacks of sunstroke, and of apoplexy, in the present year, and to the high proportionate mortality attending them.

With the exceptions of *diseases of the nose*, of the *absorbent system*, and of the *cutaneous system*, the rate of admissions is higher than the corresponding rate of the preceding year, in every order of diseases in this class; and with one exception, that of *diseases of the circulatory system*, the rate of mortality is also higher in all the orders in which deaths occurred in either year. The excess in *diseases of the digestive system*, is ·74 per 1,000 men.

CONDITIONS, &c.—*Debility.*—The rate of admissions exceeds that of the preceding year by ·3 per 1,000 men.

POISONS.—The rate of admissions exceeds that of 1874 by 2· per 1,000 men; concomitantly with a greater prevalence, there was a greater intensity of diseases in this class, evidenced by an increase in the rate of mortality, on that of the average. In the preceding year no deaths were due to poisons. Of the admissions in this class, 67 were due to *delirium tremens*, four of the attacks being fatal; 21 to alcohol, taken in an immediately poisonous quantity; two admissions were consequent on the stings of insects, and one was due to the poison of a vegetable irritant.

INJURIES.—*Accidental.*—The admissions in this order are in a slightly lower rate than in the preceding year, but the rate of mortality is higher. One of the deaths was from a multiple injury, five were from drowning, two were from gunshot, one was from fracture, and one was from injury of the brain. There were three *self-inflicted* deaths, by gunshot in each instance.

The admissions and deaths at the principal stations in the Command are shown in the following Table :—

Military Divisions.	Stations.	Average Annual Strength.	Admitted into Hospital.	Died in India.	Ratio per 1,000 of Strength.			
							Average of 12 Years.	
					Admitted.	Died.	Admitted.	Died.
Presidency	Bombay	535	1,321	11	2469·7	20·56	1471·1	19·08
	Deolali	50	54	2	1080·0	40·00	..	..
	Baroda	357	585	20	1638·7	56·02	..	..
	Ahmedabad ..	254	434	7	1708·7	27·56	2069·6	22·19
	Mount Aboo ..	104	130	1	1250·0	9·62	1884·7	20·69
	Deesa	753	629	11	836·6	14·61	1387·6	16·83
	Aden	694	643	4	926·5	5·76	1109·9	19·00
	Kurrachi ..	755	910	17	1205·3	22·52	1442·1	13·53
	Hyderabad ..	376	480	4	1276·6	10·64	1279·3	14·35

Military Divisions.	Stations.	Average Annual Strength.	Admitted into Hospital.	Died in India.	Ratio per 1,000 of Strength. Admitted.	Died.	Average of 12 Years. Admitted.	Died.
Poona ..	Poona	1,384	2,566	28	1854·0	20·23	1804·8	12·35
	Kirkee	461	843	13	1828·6	28·20	1858·4	10·24
	Ahmednagar ..	418	399	2	954·5	4·78	1288·4	10·93
	Satara	159	152	1	956·0	6·29	1130·2	12·38
	Belgaum	993	1,119	15	1126·9	15·11	1023·8	8·95
Mhow ..	Mhow	1,256	1,848	25	1487·3	19·90	1661·4	13·27
	Indore	99	176	..	1777·8	..	1463·8	15·35
	Neemuch ..	436	829	25	1878·4	57·57	2251·6	36·71
	Nasirabad ..	579	924	16	1595·8	27·63	1924·9	29·22
	Assirgarh ..	92	61	..	663·0	..	1380·4	15·28
	Depôts, Sanitaria, &c..	196	376	7	1918·4	35·71	..	..
	On the March, &c.	224	203	1	906·2	4·46	1008·5	19·40

The rate of admissions, and also that of deaths, is lower than in the preceding year for Assirgarh, Deesa, and Aden. At the first-named station, the strength in both years was inconsiderable, and consequently great fluctuations in the rates of the results of sickness, are to be expected. For the station of Deesa, the reduction in the admission rate on that of 1874 amounts to 247·8, and, in the rate of deaths, to 3·14 per 1,000 men. In the case of Aden, the decrease in the rate, both of admissions and of deaths, is less considerable. The rate, both of admissions and of deaths, is higher than in 1874 for Poona, Kirkee, Belgaum, Nasirabad, Kurrachi, and Satara; in every instance except that of Belgaum, much higher. At Poona, the excess of admissions was due to the great prevalence of malarial fevers in the two regiments there; the excess in the rate of mortality of that station was caused by deaths from enteric fever, and from cholera. The admission-rate for Nasirabad is nearly double, and the death-rate is more than threefold the corresponding rate in 1874; the first result was caused by the greater prevalence of malarial fevers, the second did not depend on excessive mortality from any one disease, but on the greater fatality than in the preceding year, of a number of diseases. The admission-rate for the station of Kurrachi, is one-fourth higher, and the death rate is more than double the rate of 1874. For the stations of Bombay, Ahmedabad, Hyderabad, and for Troops on the March, the admission rates are higher, whilst the death rates are lower, than those of the preceding year. On the other hand, the opposite results of lower admission rates, with higher death rates, than in 1874, are seen in the instances of Mhow, Neemuch, and Mount Aboo.

The admissions and deaths in the different classes and orders of diseases in each Division in the Command, are shown in the following Table :—

Order.	Military Divisions	Presidency.		Poona.		Mhow.		Troops on March.		Convalescents and Invalids.		Presidency.		Poona.		Mhow.		Troops on March.		Convalescents and Invalids.	
	Average Annual Strength	3,958		3,433		2,386		224		196		Proportions per 1,000.									
	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. General Diseases.																				
1	Febrile Group	1,986	25	1,907	23	1,521	35	34	1	96	3	501·8	6·32	555·5	6·70	637·5	14·67	151·8	4·46	489·8	15·31
2	Constitutional "	429	4	466	8	407	4	16	...	59	1	108·4	1·01	135·7	2·33	170·6	1·67	71·4	...	301·0	5·10
	II. Local Diseases. Diseases of the—																				
1	Nervous System	54	17	39	8	66	8	4	...	22	...	13·6	4·29	11·4	2·33	27·7	3·35	17·9	...	112·4	...
2	Eye	100	...	93	...	68	...	4	...	3	...	25·3	...	27·1	...	28·5	...	17·9	...	15·3	...
3	Ear	34	...	33	...	24	...	...	...	1	...	8·6	...	9·6	...	10·1	...	...	...	5·1	...
4	Nose	3	...	3	...	1	...	...	...	...	...	·8	...	·9	...	·4	...	...	...	...	...
5	Circulatory System	71	4	50	3	48	2	3	...	18	1	17·9	1·01	14·6	·87	20·1	·84	13·4	...	91·9	5·10
6	Absorbent "	82	...	108	...	30	...	6	...	13	...	20·7	...	31·4	...	12·6	...	26·8	...	66·3	...
8	Respiratory "	122	5	193	1	159	3	6	...	16	...	30·8	1·26	56·2	·29	66·6	1·26	26·8	...	81·6	...
9	Digestive "	924	14	923	11	655	9	49	...	72	2	233·4	3·54	268·9	3·21	274·5	3·77	218·7	...	367·4	10·20
10	Urinary "	283	1	392	...	188	1	23	...	8	...	71·5	·25	114·1	...	78·8	·42	102·7	...	40·8	...
11	Generative "	43	...	53	...	33	...	7	...	1	...	10·9	...	15·4	...	13·8	...	31·2	...	5·1	...
12	Organs of Locomotion	17	...	18	1	17	...	1	...	1	...	4·3	...	5·2	·29	7·1	...	4·4	...	5·1	...
13	Cellular Tissue	91	...	57	...	38	...	5	...	2	...	23·0	...	16·6	...	15·9	...	22·3	...	10·2	...
14	Cutaneous system	370	...	214	...	187	...	17	...	13	...	93·5	...	62·3	...	78·4	...	75·9	...	66·3	...
	III. Conditions, &c.																				
	Debility	129	...	109	...	64	...	2	...	41	...	32·6	...	31·8	...	26·8	...	8·9	...	209·2	...
	IV. Poisons	18	...	40	3	31	1	...	...	1	...	4·5	...	11·7	·87	13·0	·42	...	...	5·1	...
	V. Injuries.																				
2	Accidental	420	5	390	2	298	3	26	...	8	...	106·1	1·26	113·6	·58	124·9	1·26	116·1	...	40·8	...
4	Self-inflicted	...	2	...	1	2	...	...	...	...	...	...	·51	...	·29	·8	...	...	...	...	...
	VI. Surgical Operations ...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	No appreciable disease	10	...	8	...	...	...	...	...	1	...	2·5	...	2·3	...	·4	...	...	...	5·1	...
	Total	5,186	77	5,096	61	3,838	66	203	1	376	7	1310·2	19·45	1484·3	17·76	1608·5	27·66	906·2	4·46	1918·5	35·71

NOTE.—The various stations in the Bombay Command having been redistributed in Military Divisions, and the number of the latter reduced from six to three, no comparison of results in the present, and in the preceding year between the Divisions can be made.

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General Diseases.—The highest rate of admissions for diseases in this class, is conjoined with the highest rate of deaths in the Mhow Division. The rate of prevalence of diseases in both groups of the class is also greatest in this Division, but the rate of mortality for the *constitutional group*, is exceeded by that of the Poona Division.

The admissions and deaths from the principal diseases in this class, in each of the Divisions, are shown in the following Table:—

Military Divisions... ...	Presidency.		Poona.		Mhow.		Troops on March.		Convalescents and Invalids.		Presidency.		Poona.		Mhow.		Troops on March.		Convalescents and Invalids.	
Strength	3,958		3,433		2,386		224		196		Ratios per 1,000.									
General Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Febrile— Eruptive Fevers	2	...	4	1	...	...	...	...	...	...	·5	...	1·2	·29	...	...	...	...	...	...
Continued „	364	13	493	5	206	1	13	...	11	3	92·0	3·28	143·6	1·46	86·3	·42	58·0	...	56·1	15·31
Paroxysmal „	1,601	2	1,368	1	1,272	5	21	1	83	...	404·5	·51	398·5	·29	533·1	2·09	93·8	4·46	423·5	...
Cholera	18	10	26	16	37	27	...	...	2	...	4·5	2·53	7·6	4·66	15·5	11·32	...	...	10·2	...
Influenza	...	...	...	...	1	...	...	...	...	...	...	...	...	...	·4	...	...	...	...	...
Erysipelas	1	...	10	...	4	2	...	...	...	...	·3	...	2·9	...	1·7	·84	...	...	...	...
Other Diseases of this Group	...	...	6	...	1	...	...	...	...	...	...	...	1·7	...	·4	...	...	...	...	...
Total	1,986	25	1,907	23	1,521	35	34	1	96	3	501·8	6·32	555·5	6·70	637·4	14·67	151·8	4·46	489·8	15·31
Constitutional— Rheumatism	148	1	134	...	167	...	4	...	27	...	37·4	·25	39·0	...	70·0	...	17·8	...	137·8	...
Syphilis	232	...	295	...	212	1	10	...	22	...	58·6	...	85·9	...	88·9	·42	44·6	...	112·2	...
Scrofula, Phthisis, &c. ...	27	3	27	5	15	3	1	...	9	1	6·8	·76	7·9	1·46	6·3	1·26	4·5	...	45·9	5·10
Scurvy and Purpura ...	...	...	1	1	4	...	...	...	...	...	...	...	·3	·29	1·7	...	...	...	...	...
Anæmia	20	...	9	...	8	...	1	...	...	...	5·1	...	2·6	...	3·3	...	4·5	...	...	...
Other Diseases of this Group	2	...	...	2	1	...	...	...	1	...	·5	...	...	·58	·4	...	...	...	5·1	...
Total	429	4	466	8	407	4	16	...	59	1	108·4	1·01	135·7	2·33	170·6	1·68	71·4	...	301·0	5·10

Continued Fevers.—The rate of prevalence of fevers of this nature for the Poona Division, greatly exceeds that of either of the others. The highest rate of mortality is found with a low rate of prevalence in the Presidency Division; this association is explained by the more fatal character of the attacks of enteric fever occurring in the Presidency.

Enteric Fever.—The greatest prevalence of this form of fever was in the Poona Division, at the station of Poona. The Presidency Division shows the next greatest degree of prevalence.

The relations of enteric fever to locality, and to season, are shown in the following Table, which has been compiled from the Quarterly Returns of the Command:—

Divisions.	Stations.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
		Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
Presidency	Deesa	1	1	..	..	..	..	..	..	1	1
	Kurrachi ..	..	..	4	2	6	5	1	..	11	7
	Baroda	..	..	..	..	..	..	2	..	2	..
	Ahmedabad ..	..	..	..	..	..	..	1	1	1	1
	Total ..	1	1	4	2	6	5	4	1	15	9
Poona ..	Poona	..	..	7	3	5	..	1	..	13	3
	Ahmednagar ..	2	..	..	..	..	..	..	..	2	..
	Belgaum ..	..	..	2	2	..	..	1	..	3	2
	Total ..	2	..	9	5	5	..	2	..	18	5
Mhow ..	Mhow	..	..	1	1	..	..	1	..	2	1
	Indore	..	..	1	..	..	..	..	..	1	..
	Nasirabad ..	..	..	..	..	..	..	1	..	1	..
	Total ..	..	..	2	1	..	..	2	..	4	1
Depots, &c. ..	Teethal	..	..	1	..	..	..	..	..	1	..
	Tarraghar ..	..	..	1	1	1	1	..	..	2	2
	Total ..	..	..	2	1	1	1	..	..	3	2
	Total in the Command ..	3	1	17	9	12	6	8	1	40	17

The relation between the prevalence of enteric fever and locality is obscured by the evidence of its relation to periods of residence in the Command, or in other words, the immensely greater susceptibility of new comers to contract this disease, than that existing in the case of those whose susceptibility may have been weakened by the influence of a longer exposure to its exciting cause. In the present year, two corps, having together a strength of 1,839 non-commissioned officers and men, arrived in the Bombay Command from England; the admissions for enteric fever amongst them were 25, being in the rate of 13·6 per 1,000 men. In the other corps in the Command, *Bombay.* having a strength of 8,503 non-commissioned officers and men, there were 17 admissions for enteric fever, being in the rate of 2· per 1,000; but in these corps were 401 men newly-arrived from home, and it was in this small number that most of the 17 attacks of enteric fever occurred. The negative evidence is also to the same effect, only one admission for enteric fever is returned by the three corps, which, being near the end of their service in India, did not receive drafts of fresh men in 1874. These facts respecting enteric fever are in harmony with those accumulated in past years, and made available through the labours of the eminent Medical Officer who is the recognised authority on statistics of disease in India; but it should not be lost sight of that the knowledge acquired of late years as to the class of persons most likely to suffer from enteric fever in India does not of necessity lead to the acceptance of the opinion that the disease is, in a certain proportion of young persons, the unavoidable result following on arrival in that country. If the known conditions which determine the production of enteric fever in other countries, are present in a cantonment in India, the disease will appear, and will attack the susceptible class there; but that it is not originated as the necessary outcome of climatic conditions acting on young and unseasoned constitutions, is attested by the fact, that, some stations of the Bombay Command—in the present, as in past years—have been free from the disease, though they contained susceptible persons.

Paroxysmal Fevers.—The highest rate of prevalence, that of the Mhow Division, exceeds the lowest, that of the Poona Division, by 134·61 per 1,000, and, with the greatest prevalence, the greatest mortality is conjoined.

The following Table, taken from the report of the Principal Medical Officer, shows the proportional prevalence of paroxysmal fevers at the several stations in the Command, in the present and in the preceding year, arranged in the order of the greatest prevalence:—

Stations.	Rate of admissions per 1,000 of strength.		Stations.	Rate of admissions per 1,000 of strength.	
	1875.	1874.		1875.	1874.
Bombay.. ..	1058·6	619·4	Kurrachi ..	347·0	187·0
Neemuch ..	784·4	1110·3	Kirkee ..	319·6	287·3
Poona	720·9	415·6	Satara	276·7	250·0
Indore	676·8	701·0	Aden	276·7	320·1
Hyderabad ..	622·3	592·8	Assirghur ..	271·7	485·1
Poorundhur ..	592·1	269·7	Ghizri	176·5	600·0
Ahmedabad ..	590·6	546·8	Belgaum ..	143·0	132·9
Taraghur ..	500·0	..	Baroda ..	134·8	2225·8
Mhow	486·5	447·0	Deesa	119·5	281·1
Mount Aboo ..	424·5	850·0	Deolali	115·9	719·3
Nasirabad ..	393·4	95·4	Ahmednagar ..	90·9	250·0

Cholera.—The greatest prevalence of this disease, and the greatest fatality from it, was in the Mhow Division: the proportion of deaths to attacks, also 729·7 per 1,000, was higher than that in the Poona Division, 615·4 per 1,000 attacks. Only 18 admissions for the disease took place in the whole of the

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Presidency Division, none of which were in that extensive northern portion of it, which was formerly the Scinde Division. No comprehensive narrative of the outbreak of cholera in the Command can be compiled from the notices respecting individual cases of the disease which occur in the reports of some of the Medical Officers, as even if the essential facts were always given, they would not suffice to indicate the epidemic relations of the disease to other localities, and to other populations, than those within the sphere of observation of the writer. It may still however be of use to collate and to record the most salient facts respecting the epidemic, which are found in the reports from the Command. The first admission in the outbreak occurred on the 5th of May, at Baroda; between this and the 11th of June there were 15 admissions amongst the men of the E Battery, 9th Brigade, Royal Artillery, and in the detachment 2nd Battalion, 7th Foot, stationed there. Previously to this cholera had prevailed amongst the native population of Baroda. The troops were encamped as soon as the existence of the disease amongst them was established. At the neighbouring station of Ahmedabad, in May, two men of the force there were attacked by cholera, and in the same month, at Khandalla, there were two admissions, and in the latter part of June, two men of the detachment of the 2nd Battalion, 7th Foot, who had recently arrived from Baroda, were attacked. About this time, also, there were two admissions at Kirkee.

The next outbreak, in point of time, was that which occurred at Neemuch, a station north-east of Baroda, in the F Battery, 9th Brigade, Royal Artillery, and in the detachment 108th Foot; there were 26 admissions of non-commissioned officers and men, of which 23 were in the Artillery, 18 being fatal; three were in the 108th, two being fatal. There was also a comparatively wide diffusion of the disease amongst the families of the soldiers. The first soldier was attacked on the 27th of July, the last on the 9th of September. The battery of Artillery moved into camp on the 7th of August, and remained encamped until the 24th of September. The usual good effect of vacating infected quarters, was not apparent in this instance; of the 23 attacks of cholera in men of the battery, 20 occurred at the different camps occupied; nine of the attacks occurred at one place, which was reached on the 8th day after leaving the barracks; from a knowledge of the usual period of latency of this disease, it may be inferred that the illnesses were not contracted in quarters. The comparative exemption of the detachment of the 108th, during the outbreak of cholera in the battery of Artillery, is accountedfor by the circumstance of its having been quartered in barracks two miles distant from, and to the west of, those occupied by the Artillery, and placed at a greater elevation. Whilst the rate of admissions in the last-named arm, is 138·5 per 1,000 of the average annual strength, that in the first is only 10·7. The first case in the 108th occurred in hospital, on the 20th of August, (nearly a month after the beginning of the outbreak in the Artillery), and was that of a man who had been 14 days there previously to his attack; the hospital was at once vacated, and a similar course was followed in the instances of those buildings in which the other two attacks of cholera originated.

In the beginning of August, outbreaks of cholera occurred at Poona, in the 2nd Battalion, 15th Foot, and at Mhow, in the 68th Foot. These may properly be called house epidemics, as the disease did not affect the troops stationed in the other barracks at the two stations. The attacks in the 2nd Battalion 15th, (and in men attached to the battalion), were 17 in number; they all occurred between the 7th and 20th of August, and, in thirteen instances the men were either in hospital at the time, or were attending hospital, or were on duty there. The greatest proportional mortality was in the class of men over 25 years of age. At Mhow, cholera had prevailed amongst the natives, and cases had occurred amongst the native troops at the station four months before; the first man of the 68th, was attacked on the 9th of August; between this and the 23rd of September, when the regiment went into camp, there were 11 attacks amongst the men of the regiment. No case of the disease appeared after the barracks were left. Two of the attacks originated in hospital.

During the period of the epidemic prevalence of cholera in the stations

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referred to, sporadic cases of the disease occurred at other stations of the Command, as at Bombay (1), at Ahmednagar (1), at Nasirabad (1).

Rheumatism.—The rate of admissions in the Mhow Division greatly exceeds that of the others. The greatest prevalence of this disease was in the 108th, and in the 68th Regiments.

Syphilis.—The rate of admissions is nearly the same in the Poona, and in the Mhow Divisions; for the Presidency, the rate is lower than either of the others by about one-third.

Scrofula, Phthisis, &c.—There is no material difference in the rate of admissions for diseases of this kind in the three Divisions.

Local Diseases.—*Diseases of the Nervous System.*—The rate of admissions for diseases in this order, of the Mhow Division, is more than double that of either of the two others, but the greatest rate of mortality is that of the Presidency, in which Division the large proportion of deaths was caused by the increased fatality of attacks of apoplexy, and of sunstroke.

Diseases of the Eye.—In all the Divisions the rates of admissions for diseases in this order are nearly the same.

Diseases of the Circulatory System.—The rate of admissions for the Mhow Division, exceeds that of the Poona by nearly one-third.

Diseases of the Respiratory System.—The rate of admissions for the diseases of this order varies widely, that of the Mhow Division being 35·8 per 1,000 men greater than that of the Presidency, but the rate of mortality is the same in both Divisions.

Diseases of the Digestive System.—The rates of admissions, and those of deaths, of the three Divisions, do not differ materially.

Diseases of the Urinary System.—The rate of admissions for the Poona Division exceeds the lowest rate by 42·69 per 1,000 men.

Poisons.—The rate of admissions for the Mhow Division is three times greater than that of the Presidency.

Injuries.—*Accidental.*—There is no important difference in the rate of admissions due to accidental injuries in any of the three Divisions.

The admissions, deaths, invaliding, and number of constantly sick in the several corps which served in the Command during the year, or part of the year, are shown in the following Table :—

Regiments.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average number constantly sick.	Ratio per 1,000 of Annual Strength.				Average sick time to each soldier.	Average duration of each case of sickness.	Stations during the Year.
						Admitted.	Died.	Invalided.	Constantly sick.			
CAVALRY.										Days.	Days.	
3rd Hussars	454	545	4	67	25·87	1200·4	8·81	147·6	56·98	20·80	17·33	Mhow, 12 months; det. at Bombay, ¾.
ROYAL ARTILLERY.												
D Battery, C Brig., R.H.A.	155	283	6	14	13·37	1825·8	38·71	90·32	86·26	31·49	17·21	Kirkee, 12; detachment at Bombay, 1¾.
E Battery, C Brig., R.H.A.	153	291	2	37	12·12	1901·9	13·07	241·83	79·21	28·91	15·20	Mhow, 12.
A Batt., 4th Brig., R.A.	137	301	9	3	9·34	2197·0	65·69	21·90	68·18	24·88	11·36	Kirkee, 9; detachment at Baroda 2.
B ,, 4th ,, ,,	134	165	6	3	6·67	1231·3	44·78	22·39	49·78	18·17	14·75	Deesa, 9.
C ,, 4th ,, ,,	130	257	4	10	10·02	1976·9	30·77	76·92	77·08	28·13	14·23	Belgaum, 9.
D ,, 4th ,, ,,	125	130	9	5	6·11	1040·0	72·00	40·00	48·89	17·84	17·15	Kurrachi, 9.
E ,, 4th ,, ,,	121	256	4	1	7·16	2115·7	33·06	8·26	59·17	21·60	10·21	Kirkee, 9; on the march ½.
F ,, 4th ,, ,,	143	257	3	9	8·45	1797·2	20·98	62·94	59·09	21·57	12·00	Ahmedabad, 10.
G ,, 4th ,, ,,	134	356	4	14	15·10	2656·7	29·85	104·48	112 68	41·19	15·41	Nasirabad, 9.
1st ,, 6th ,, ,,	83	76	..	4	2·52	915·7	..	48·20	30·36	11·08	12·10	Aden, 9½; Colaba, 2.
2nd ,, 6th ,, ,,	84	127	4	7	7·27	1511·9	47·62	83·33	86·55	31·59	20·89	Mhow, 9; Aden, 3.
3rd ,, 6th ,, ,,	82	209	3	3	7·18	2548·8	36·58	36·58	86·34	31·96	12·54	Colaba, 9; Aden, 3.
4th ,, 6th ,, ,,	83	177	4	5	6·16	2132·5	48·19	60·12	74·22	27·09	12·70	Colaba, 8¾; Mhow, 3.
5th ,, 6th ,, ,,	82	204	1	11	6·63	1146·3	12·19	134·15	80·85	29·80	11·86	Colaba, 12.
6th ,, 6th ,, ,,	78	73	1	1	3·22	935·9	12·82	12·82	41·28	15·07	16·10	Aden, 9½; Colaba, 2½.
B ,, 9th ,, ,,	171	339	2	11	9·49	1982·4	11·70	64·33	55·80	20·36	10·22	Hyderabad, 8½; Kurrachi, 3½.
D ,, 9th ,, ,,	47	25	1	7	·92	531·9	21·28	148·93	19·51	7·14	13·43	Kirkee and Baroda, 3.
E ,, 9th ,, ,,	170	258	3	2	8·20	1517·6	17·65	11·76	48·23	17·61	11·60	Ahmednagar, 4; Kirkee and Baroda, 8.
F ,, 9th ,, ,,	166	363	20	18	11·53	2192·8	120·48	108·43	69·46	25·35	11·59	Neemuch, 12.
Total Royal Artillery	2,278	4,147	86	165	151·46	1820·5	37·75	72·43	66·49	24·27	13·33	

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Regiments.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average number constantly sick.	Rate per 1,000 of Annual Strength.				Average sick time to each soldier.	Average duration of each case of sickness.	Stations during the Year.
						Admitted.	Died.	Invalided.	Constantly sick.			
ROYAL ENGINEERS ..	38	10	1	..	·17	263·2	26·31	..	4·47	1·63	6·20	Kirkee, 12.
INFANTRY.												
1st Batt., 2nd Foot ..	925	1,358	10	41	47·85	1468·1	10·81	44·32	51·73	18·88	12·87	Ahmednagar, 12; detachments at Colaba, Satara, and Poona.
2nd „ 7th „ ..	886	1,919	23	95	64·04	2165·9	25·96	107·22	76·28	26·38	12·18	Poona, 12; detachments at Baroda and Bombay.
2nd „ 15th „ ..	698	849	17	20	32·10	1216·3	24·37	28·65	46·13	16·78	13·80	Poona, 10½.
2nd „ 25th „ ..	519	448	3	1	19·51	863·2	5·78	1·92	37·59	13·72	15·89	Bombay, 1; Aden, 10.
41st Foot	89	41	1	1	2·81	460·7	11·24	11·24	31·57	11·52	25·01	Aden, 2.
56th „	884	908	11	20	35·25	1027·1	12·44	22·62	39·87	11·55	14·15	Kurrachi, 12; detachment at Hyderabad.
66th „	895	879	13	67	44·65	982·1	14·52	74·86	49·89	18·21	18·54	Belgaum, 12.
68th „	886	1,174	18	64	72·41	1325·1	20·32	72·23	81·73	29·83	22·51	Mhow, 12; detachments at Assirgarh and Indore.
83rd „	900	788	14	48	37·95	874·4	15·55	53·33	42·17	15·39	17·58	Deesa, 12; detachments at Ahmedabad, Baroda, Mount Aboo.
108th „	869	1,122	24	39	48·14	1291·1	27·62	44·90	55·40	20·22	15·66	Nasirabad, 12; detachment at Neemuch.
Total Infantry ..	7,551	9,486	134	396	404·71	1256·2	17·75	52·44	53·60	19·56	15·59	

Judged by its moderate admission and death-rates, the health of the only regiment of Cavalry—the 3rd Hussars—was good, though the large proportion of men invalided reduces their value. The regiment did not suffer from cholera, which attacked the Infantry regiment at the station, and only one admission for enteric fever took place—the last of the series of the outbreak of the disease, which occurred in the preceding year. Of the men invalided, 8 were sent home on account of secondary syphilis, 11 on account of hepatitis, and 21 for general debility.

The health of the Royal Artillery, as estimated by the higher rates of nearly every result of sickness in it, was the least favourable of that of any arm; a very high admission rate, an average sick time to each soldier nearly one-fifth greater than that of Cavalry, or of Infantry, show the large excess of prevalence of sickness, whilst a death-rate exceeding that of the Command by 15·90 per 1,000 men, is evidence of the much greater intensity of the sickness affecting this arm. The invaliding rate however though considerably higher than that of Infantry, is lower than that of Cavalry. Between the results in the various component batteries of the four brigades of Artillery in the Command, the amount of sickness, its intensity, and the accruing temporary loss of service by the stay of the men in hospital, and of eventual permanent loss by the invaliding of a portion of them, there are wide differences, but taking the batteries together, in brigades, the differences in the results of sickness are not so considerable. The admission rates of the C Brigade, Royal Horse Artillery, and of the 4th Brigade, Royal Artillery, are identical; they are the highest of all, but the difference between the rate for them, and the rate for the 9th Brigade, which is the lowest, is only 85·6 per 1,000 men. A comparison of the rates of mortality gives no reliable evidence as to the comparative healthiness of the brigades, another, as they are disturbed by the influence of the association of unequal invaliding rates. The health of the C Brigade, Royal Horse Artillery, was the least satisfactory during the year; in spite of its having the lowest death rate, with a high rate of prevalence of sickness, it conjoined a longer average sick time to each man, a longer duration of each case of sickness, and a much higher proportion of invaliding than in any other brigade. Next to the C Brigade, the results in the case of the 4th Brigade were the most unfavourable. Arriving in the beginning of the year, its seven batteries were quartered at six different stations; during their service of nine months in the Command, a loss of one-eleventh part of the average annual strength, was sustained by deaths and invaliding. The mortality was chiefly caused by enteric fever, five of the batteries returned deaths from it. The two stationed at Kirkee, return no admissions for this disease, but they suffered comparatively severely from simple continued fever. Cholera, in a sporadic form, also attacked four of the batteries. The 9th Brigade shows the highest death rate in the arm, 46·93 per 1,000 men; the occurrence of the outbreak of cholera in the F Battery, at Neemuch, which has already been adverted to, chiefly contributed to this high proportion of deaths.

In Infantry, the health of the 2nd Battalion of the 7th Foot, stationed at Poona, was conspicuously the worst. The admission-rate, the death-rate, and the invaliding-rate, show that the amount and the intensity of disease were both greater than in any other regiment. Numerous admissions were due to fevers, chiefly paroxysmal, amongst the men of the head-quarters at Poona; the mortality was chiefly that occurring in the outbreak of cholera amongst the men of the detachment at Baroda. The highest standard of health of any regiment of Infantry, was that of the 2nd Battalion, 25th Foot, stationed at Aden. Its admission, death, and invaliding rates, are the lowest, and there were fewer constantly sick in it than in any other regiment.

In the following Table, the relation between length of residence in the Command (or in India), and the results to the health of corps, are shown :—

Regiments, &c.	Year of Service in the Command (or in India).	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average number of constantly sick.	Rate per 1,000 of Annual Strength.				Average sick time to each soldier.	Average duration of each case of sickness.
							Admitted.	Died.	Invalided.	Constantly sick.	Days.	Days.
4th Brigade, R.A. . . 2nd Battn., 15th Foot	1st	1,622	2,571	56	65	94·95	1585·1	34·52	40·07	52·37	21·30	13·48
2nd Battn., 7th Foot	2nd	886	1,919	23	95	64·01	2165·9	25·96	107·22	76·28	26·38	12·18
C Brigade, R.H.A. . .	3rd	308	574	8	51	25·49	1863·6	25·97	165·58	82·76	30·21	16·21
68th Foot	4th	886	1,174	18	64	72·41	1325·1	20·32	72·23	81·73	29·83	22·51
56th Foot	5th	884	908	11	20	35·25	1027·1	12·44	22·62	39·87	14·55	14·15
66th Foot . . . . 83rd ,, ...	6th	1,795	1,667	27	115	82·60	1485·8	15·04	64·07	46·02	16·79	18·08
3rd Hussars . . 6th Brigade, R.A. . . 9th ,, ,, . .	7th	1,500	2,396	43	136	88·99	1597·3	28·66	90·66	59·32	21·65	13·59
2nd Battn., 25th Foot	8th	519	448	3	1	19·51	863·2	5·78	1·92	37·59	13·72	15·89
1st Battn., 2nd Foot	9th	925	1,358	12	41	47·85	1468·1	12·97	44·32	51·73	18·88	12·87
108th Foot	Over 10 years	869	1,122	25	39	48·14	1291·1	28·77	44·90	55·40	20·22	15·66

Though not shown in every result of sickness, there is an indication that the least favourable health, was that of corps recently arrived in the Command; that this is not more distinctly evidenced, may be due to the small numbers under observation in each category, and perhaps to the disturbing influence of the unequal proportions of recently-joined men, who formed part of all the older regiments, excepting one. The influence of locality in conducing to sickness is more shown in the Table than that which is due to constitutional disturbance in young men newly arrived in a tropical country; by taking longer periods than annual ones, however, the

Bomb

influence of locality, though not eliminated, is weakened, and in the following Table it will be seen that in spite of the circumstance that young regiments —young as regards periods of Service in the Command—were usually quartered at the more healthy stations, all the results of sickness in corps in the first category, were with one exception, unfavourable. Owing to the more acute character of the majority of the diseases in young, than in older regiments, the average duration of each attack of sickness was less, than in the case of the corps of longer service :—

Regiments, &c.	Years of service in the Command, or in India.	Average Annual Strength.	Admitted into Hospital.	Died.	Invalided.	Average number constantly sick.	Annual rate per 1,000 of strength.				Average sick time to each soldier.	Average duration of each case of sickness.
							Admitted.	Died.	Invalided.	Constantly sick.		
											Days.	Days.
4th Brigade, R.A. .. 2nd Battn., 15th Foot 2nd ,, 7th ,, C Brig., R.H.A. ,,	Not more than 3 years.	2,816	5,064	87	211	184·48	1798·3	30·82	74·93	65·51	23·91	13·30
68th Foot .. .. 56th ,, ... 66th ,, ... 83rd ,, ...	Not more than 6 years.	3,565	3,749	56	119	190·26	1051·6	15·72	33·38	53·37	19·19	18·55
3rd Hussars .. 6th Brigade, R.A. .. 9th ,, ,, .. 2nd Battn., 25th Foot 1st ,, 2nd ,,	Not more than 9 years.	2,944	4,202	58	178	156·35	1427·3	19·70	60·46	53·11	19·38	15·22
108th Foot	10 years and over	869	1,122	25	39	48·14	1291·1	28·77	44·90	55·40	20·22	15·66

Officers.

Bombay. The strength of the officers serving in the Command was 372, amongst whom 288 cases of sickness were returned. The deaths were 10, of which 6 occurred in India, and 4 elsewhere. 58 officers were invalided during the year; the proportions given by these numbers are, for cases of sickness, 774·2; for deaths, 26·88; and for invaliding, 155·9 per 1,000 of the strength.

There was no material difference in respect of the kinds of diseases affecting the officers and those affecting the non-commissioned officers and men. *Fevers*, and *diseases of the digestive system*, contributed more cases of sickness than any other orders of diseases. The deaths in India, were due to enteric fever (1), cholera (2), dysentery or diarrhœa (2), suicide (1).

Women.

The average annual strength of the wives of the non-commissioned officers and men serving in the Command, was 1,165, amongst whom there were 1,068 admissions into hospital for illness, and (in India) 21 deaths. The proportions given by these numbers are, for admissions, 916·7, and for deaths, 18·03 per 1,000 of the strength.

More than one-third of the whole number of admissions were for *fevers*, chiefly paroxysmal; there were eight admissions for cholera; conjunctivitis was of relatively frequent occurrence. *Diseases of the digestive system*, occurred in the proportion of 214·6 per 1,000 of the strength (being 28·3 per 1,000 lower than the rate of admissions of the men for the same order of diseases) The cases of abortion were 23 in number, and (not included in the admissions stated above), there were 293 admissions for childbirth. The deaths (in India) were due to enteric fever (1), simple continued fever (1), remittent fever (1), cholera (5), cancer (1), consumption (1), disease of the heart (1), pneumonia (1), diseases of the digestive system (5)—one of which is returned as due to dyspepsia; 3 deaths were due to the puerpural state, and 1 was homicidal.

Children.

In an annual average strength of 2,322 children of the non-commissioned officers and men there were 1,857 admissions into hospital, and 177 deaths (in India), being in the proportions of 799·8 and of 76·23 per 1,000 of the strength respectively.

Eruptive fevers, caused 132 admissions, of which 123 were for measles, from which disease there were 12 deaths; the fatality of it would therefore appear to be in the rate of 97·56 per 1,000 attacks, but deaths from secondary diseases consequent on measles may not have been returned in the number. *Continued fevers*, caused 118 admissions, one attack (from enteric fever) was fatal. *Paroxysmal fevers*, caused 427 admissions, being in the proportion of 188·6 per 1,000 of the strength. There were three deaths in this group, all due to remittent fever. The admissions for *cholera*, were 13, the deaths 7, showing a considerably lower proportion of fatal attacks than in those occurring amongst the men. *Other diseases* of the febrile group, caused 21 admissions, of which 14 were due to whooping-cough; one attack of this disease was fatal. *Constitutional diseases*, caused 51 admissions, of which five were due to syphilis. No admission for pulmonary phthisis is returned, apparently this disease is replaced by mesenteric tabes, for which there were 17 admissions, 10 of the illnesses being fatal. *Diseases of the nervous system*, caused 52 admissions and 39 deaths; of the latter, 31 were due to convulsions. *Diseases of the eye*, caused 266 admissions, of which all but 19 were due to conjunctivitis: the rate of admissions for diseases of this order, 114·5 per 1,000, is nearly five times greater than the corresponding one for the men. *Diseases of the respiratory system*, caused only 84 admissions; of the five deaths, two were due to croup. *Diseases of the digestive system*, caused 445 admissions and 71 deaths, being in the proportions of 191·6, and of 30·57 per 1,000 of the strength respectively; 20 of the deaths from diseases classed in this order, were due to teething, and might probably be more appropriately placed amongst the deaths in diseases of the nervous system. From dysentery, and from diarrhœa together, the deaths were 47 in number. *General debility*, caused 129 admissions; of the attacks, 18 were fatal.

SANITARY REPORT.

Bomb

Surgeon-General Inglis, C.B., reports:—

Barracks.—At Colaba six single-storied barracks have been taken into occupation during the year. The infantry barracks at this station are reported as too close together, and not raised on sufficiently high plinths. The Quartermaster-General reports that measures are being taken to provide better barracks for the Depôt.

At Belgaum new upper-storied barracks and outbuildings for a field battery have been taken into use, and at Purandhar a new permanent barrack has been built.

At Baroda the barracks are old and defective in general construction. At Ghorpoorie, Poona, the barracks having many defects; a special committee has reported upon them, and improvements are to be carried out.

Guard Rooms and Cells.—A new guard-room and cells at Colaba are reported a great improvement on those previously in use.

At Aden a new guard-room at the Main Pass is reported in course of erection.

Drainage.—At Nasirabad the surface drainage in the Artillery lines is still commented on as defective. At Ghorpoorie, Poona, the surface drainage has been reported as unsatisfactory, and remedial measures are to be adopted.

At Colaba, also the Quartermaster-General reports that measures are being taken to improve the surface drainage.

Ventilation.—This has, on the whole, been satisfactory. At Ghorpoorie, Poona, and at Colaba the ventilation of the Infantry Barracks is reported to be impeded by the bungalows being too closely crowded together.

Warming.—Artificial warming is not required at most of the stations in this Command. In Sind, however, the cold is severe for one or two months of the year, and means of warming are desired by the medical officers in that district.

Lighting.—Complaints as to the lighting of the barracks are very general. The Quartermaster-General reports that every endeavour will be made to introduce kerosine lamps as soon as possible.

Flooring.—At some stations there are still objectionable mud or earthen floors, as at Colaba and Kirkee, but there are no funds at present available to remedy this defect.

Ablution and Bath Accommodation.—This has, on the whole, been good. At Ghizree a bench is required for supporting the basins in the women's ablution-room.

At Deesa the ablution accommodation is reported very inferior, but the Quartermaster-General remarks that with the present restriction on expenditure for public works it would be useless to apply to Government to improve the ablution-rooms. The defective ablutionary accommodation in the old infantry barracks at Mhow will be remedied.

Cooking.—The usual Indian plan of cooking is generally adopted, but at some stations Dean's apparatus is also in use.

Latrines.—The dry-earth system of conservancy is in use, except at stations (such as Colaba and Aden) where dry earth is not available in sufficient quantity, and McDougall's Powder has to be used instead. With regard to the dry-earth system, the Deputy Surgeon-General, Poona Circle, remarks that, to make it thoroughly efficient, some mechanical contrivance is needed to cover up the soil, as experience shows that the men neglect to use the dry earth.

Water Supply.—The water supply has generally been good and abundant. At Colaba, for two or three months of the dry season, the supply of Vehar Lake water was insufficient, and had to be supplemented by water brought by carts. Nasirabad is still dependent on a single well two miles distant for its supply of drinking water.

Dieting.—The rations, on the whole, have been very good. Beef is issued on five, and mutton on two, days each week. At some stations the size of the sheep supplying the mutton is complained of. They are so small and thin that the proportion of bone must be greater than that allowed for.

Bombay.

Clothing.—The clothing is suitable for the climate. Cotton or serge is worn, according to the season.

Canteens.—The artillery canteens at Karachi and Neemuch, and the infantry canteen at Wanowrie, Poona, are reported as being too small and badly ventilated.

At Colaba Depôt the canteen is reported quite unsuitable for the purpose—a low, ill-ventilated room.

Duties.—The ordinary routine of duties have not been prejudicial to health of troops.

A Battery of Horse Artillery suffered a good deal from its visit to Bombay in October, to take part in the reception of H.R.H. the Prince of Wales. It was encamped at Parell, and the disease contracted in the damp and hot atmosphere of Bombay Island was not fully developed until the return of the battery in December to the elevated position and dry climate of the Deccan.

Hospitals.—At Colaba the Royal Artillery hospital has been converted into a station hospital. The position of this hospital, however, is bad, being on low ground, and to leeward of, and shut in by artillery barracks. The construction of a new hospital is under consideration. The old hospital at Ahmedabad was completely destroyed by a flood in September. The native infantry hospital, in which the sick of the European troops are at present treated, is reported to be quite unsuited for the purpose during the hot and rainy seasons.

At Wanowrie, Poona, the site, plan, and surroundings of the hospital are objectionable.

At Deolali the hospital accommodation during the trooping season is quite inadequate, and even after the quarters of the various medical subordinates have been occupied as wards the accommodation has still to be supplemented by tents.

Section II.

On the Extent of Invaliding.

India.

2,744 non-commissioned officers and men were invalided in India, being in the proportion of 46·24 per 1,000 of the strength, this shows an increase of 6·05 per 1,000 over the rate of the preceding year. For the Bengal Command, the rate is higher than in 1875 by 4·19, for the Madras, by ·71, and for the Bombay, by 19·03 per 1,000 men. The large increase in the rate for Bombay, is in a great measure due to the circumstance of a change having been made in the classification of invalids in the present year; hitherto all men who left India, on account of illness during the year, were reckoned as the invalids of the year, but in 1875, all men who were passed by invaliding boards during the year are returned as the invalids of it, whether they left India, or not. This change is designed to bring the statistics of the invaliding of the Army in India, into closer correspondence with those of the other results of sickness—the admissions into hospital, the deaths, &c., in the particular year; and no doubt on the whole it does so, but as it must often happen that the causes which eventually necessitated invaliding, affected the soldier years before his health finally broke down, the loss cannot be strictly apportioned to the year in which the invaliding occurs.

In the following Table the classes and orders of diseases for which men were invalided from the three Commands are shown:—

India.

Orders.		Invalids sent home from—			Invalids from India discharged the Service at Netley.
	Station	Bengal.	Madras.	Bombay.	
	Strength	37,769	11,233	10,342	59,344
	I. *General Diseases.*				
1	Febrile Group	45	3	78	..
2	Constitutional ,, ...	273	109	107	229
	II. *Local Diseases.* Diseases of the—				
1	Nervous System	95	36	34	25
2	Eye	22	2	13	24
3	Ear	15	9	3	22
4	Nose	1	..	1	..
5	Circulatory System	228	64	51	167
6	Absorbent ,, ...	1	..	3	..
7	Ductless Glands	..	..	..	1
8	Respiratory System.. ..	53	17	22	21
9	Digestive ,, ...	325	238	114	71
10	Urinary ,, ...	22	8	16	16
11	Generative ,, ...	2	3	3	3
12	Organs of Locomotion ..	31	8	7	23
13	Cellular Tissue	2	..	1	3
14	Cutaneous System	7	6	12	8
	III. *Debility.*	369	82	152	51
	V. *Injuries.*				
2	Accidental	29	7	11	20
	VI. *Surgical Operations*..	3	1	..	5
	Total	1,523	593	628	689
	Ratio per 1,000 of mean strength 1875 ..	40·32	52·79	60·72	11·61
	Ratio per 1,000 of mean strength 1865–74	44·48	48·27	35·13	17·12

For diseases of the *constitutional group*, fewer men are invalided from Bengal, and Madras, than in the preceding year; for diseases of the *circulatory system*, more men were invalided from Bengal, 94 of them on account of palpitation, for which disability 29 men were also invalided from Madras. For diseases of the *digestive system*, the rate of invaliding for Bengal is not materially different in the two years, but in the instance of Madras it is higher in the present year. For *debility*, one-third more men were invalided from Bengal than in 1874; no explanation is apparent for the large increase in the number of men sent to England on account of a condition, for recovery from which, it might be imagined that a residence at a hill station in the country, was especially likely to be sufficient.

Section III.

Mean Daily Sick.

The average number of non-commissioned officers and men always ineffective from sickness in 1875, was in Bengal 2123·69, in Madras 619·25, and in Bombay 583·96.

The usual information calculated from these numbers is given in the subjoined Table:—

India.

	Bengal.		Madras.		Bombay.	
	1875.	1865-74.	1875.	1865-74.	1875.	1865-74.
Ratio per 1,000 constantly sick ..	56·23	56·64	55·13	60·84	56·46	53·21
Average sick time to each soldier ..	20·52	20·67	20·12	22·21	20·61	19·42
Average duration of cases.. ..	15·16	13·90	18·73	16·75	15·02	14·00

Section IV.

On the influence of Age on Mortality.

The following Table shows the details of the numbers and deaths, at specified ages, of the troops serving in India in 1875, and also those of the average of the ten previous years:—

	Under 20.		20 and under 25.		25 and under 30.		30 and under 35.		35 and under 40.		40 and upwards.	
	Average Strength.	Died.	Average Strength.	Died.	Average Strength.	Died.	Average Strength.	Died.	Average Strength.	Died.	Average Strength.	Died.
Bengal	721	8	11,884	170	11,544	184	6,443	113	5,026	141	1,241	55
Madras	197	1	3,106	37	2,892	28	1,770	21	1,538	46	341	20
Bombay	142	...	2,584	46	2,792	43	1,373	28	1,156	31	229	21
Total	1,060	9	17,574	253	17,228	255	9,586	162	7,720	218	1,811	96
Ratio of deaths per 1,000 of Strength 1875	8·42		14·40		14·80		16·90		28·24		53·01	
Ditto, 1865–74 ...	8·34		16·28		21·50		30·49		39·49		53·33	

In the following Table the loss from sickness, death, and from invalid

	Under 20.				20 and under 22.				22 and	
	Strength.	Admitted.	Died.	Invalided.	Strength.	Admitted.	Died.	Invalided.	Strength.	
Bengal	697	636	7	6	3,063	4,072	30	43	5,533	8
Bombay	152	177	1	8	1,085	1,314	14	50	1,652	2
Total	849	813	8	14	4,148	5,386	44	93	7,185	11
Ratio of Admissions per 1,000 of Strength...	957·6				1298·5				15	
Ratio of Deaths per 1,000 of Strength	9·42				10·61					
Ratio of Invalids per 1,000 of Strength	16·49				22·42					

The loss from sickness, from death, and from invaliding, for the troops serving in from accidents and from violence, and 3,120 admissions, 11 deaths, and 9 invalids, occurrin

Period of service in India since date of last landing there.	Under 1 year.				1 and under 2 years.				2 and under 3 years.				3 an
	Strength on the 1st of July.	Admitted.	Died.	Invalided.	Strength.	Admitted.	Died.	Invalided.	Strength.	Admitted.	Died.	Invalided.	Strength.
Bengal	4,574	5,895	91	76	5,434	7,671	100	213	3,463	5,741	66	149	3,998
Bombay	2,240	2,875	57	59	1,334	2,327	30	126	694	1,012	5	75	1,318
Total	6,814	8,770	148	135	6,768	9,998	130	339	4,157	6,753	71	224	5,316
Ratio of Admissions per 1,000 of Strength ...	1287·1				1477·9				1624·5				
Ratio of Deaths per 1,000 of Strength	21·7				19·21				17·08				
Ratio of Invaliding per 1,000 of Strength ...	19·8				50·09				53·89				

idental deaths, and deaths from violence have not been included :—

30		30 and under 35.				35 and under 40.				Over 40.			
Died.	Invalided.	Strength.	Admitted.	Died.	Invalided.	Strength.	Admitted.	Died.	Invalided.	Strength.	Admitted.	Died.	Invalided.
42	128	5,396	6,151	99	194	4,520	4,957	126	410	1,163	1,508	44	207
14	48	1,726	1,639	35	84	1,436	1,461	33	116	376	472	23	55
56	176	7,122	7,790	134	278	5,956	6,118	159	526	1,539	1,980	67	262
		1093·8				1077·6				1286·5			
		18·82				26·70				43·54			
		39·03				88·33				170·24			

arranged in biennial periods, is shown in the following Table, in which deaths

7 and under 8 years.				8 and under 9 years.				9 and under 10 years.				Over 10 years.			
Strength.	Admitted.	Died.	Invalided.	Strength.	Admitted.	Died.	Invalided.	Strength.	Admitted.	Died.	Invalided.	Strength.	Admitted.	Died.	Invalided.
2,615	3,556	35	141	1,116	1,850	21	74	1,250	1,384	12	80	3,351	3,632	80	226
272	585	1	10	462	342	4	9	192	708	3	16	1,033	1,085	27	43
2,887	4,141	36	151	1,578	2,192	25	83	1,442	2,092	15	96	4,384	4,717	107	269
1434·4				1389·1				1450·7				1099·8			
12·37				15·84				10·40				24·41			
52·30				52·60				66·57				61·36			

XIV.—ON THE HEALTH OF THE TROOPS ON BOARD SHIP.

STATISTICAL REPORT.

The Troops on board ship during the year, as shown by the Returns received in the Army Medical Department, were as follows :—

I.	Corps and drafts proceeding on Foreign Service	10,198
II.	Do. returning from Foreign Service	6,431
III.	Do. passing by sea from one Command to another, White Troops	3,181
	Do. Do. Do. Black Troops	109
IV.	Invalids returning to England	2,856

I. Troops proceeding on Foreign Service.

The average annual strength represented by the 10,198 non-commissioned officers and men, who embarked for service abroad during the year is 931 ; there were 404 admissions into hospital, and 10 deaths, amongst them, being in the proportions of 434· and 10·73 per 1,000 of the strength respectively ; the proportion of admissions is nearly a-third lower, but the proportion of deaths is double, that of the rate of the preceding year.

The classes and orders of diseases by which the admissions and deaths were caused are shown in the following Table :—

	Station.	To all Stations, Abroad.			
	No. of N.-C. O. and men Embarked	10,198			
	Average *Annual* Strength	931			
				Ratio per 1,000.	
Order.	Diseases.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*				
1	Febrile Group	28	1	30·1	1·07
2	Constitutional „	68	1	73·0	1·07
	II. *Local Diseases.*				
1	Nervous System	1	..	1·1	..
2	Eye	7	..	7·5	..
3	Ear	1	..	1·1	..
5	Circulatory System	2	..	2·1	..
6	Absorbent „	6	..	6·4	..
8	Respiratory „	88	6	94·5	6·45
9	Digestive „	47	..	50·5	..
10	Urinary „	42	..	45·1	..
11	Generative „	8	..	8·6	..
12	Organs of Locomotion	1	..	1·1	..
13	Cellular Tissue	13	1	14·0	1·07
14	Cutaneous System	52	..	55·9	..
	III. *Conditions, &c.*				
	Debility	7	..	7·5	..
	V. *Injuries.*				
2	Accidental	33	1	35·5	1·07
	Total	404	10	434·0	10·73

Troops on Board Ship.

Excepting drafts amounting to 2,363 non-commissioned officers and men for the Mediterranean, Ceylon, Singapore, Barbadoes, Halifax, and the Fiji Islands, all the troops in this section embarked for India, and it is amongst them that the greatest proportionate amount of sickness and of mortality occurred; the rate of admissions in troops embarked for India is 469·8, and that of deaths 11·55 per 1,000 of the average annual strength, whilst in troops embarked for all other places the rates are 250· and 6·58 per 1,000 respectively. The important differences in the conditions affecting each—such as the season of the year, and the length of time the troops were on board ship, &c., prevent a strict comparison being made as regards the results to health, in the case of the two contrasted bodies of troops; but the fact remains that the health of the men who were embarked in great numbers in large ships was inferior to that of men embarked in lesser numbers in smaller ships; the diseases causing deaths originated for the most part, soon after the embarkation of the troops, and therefore anterior to the time in which the influence of a tropical climate would be experienced.

GENERAL DISEASES.—*Diseases of the Febrile Group.*—The prevalence of fevers was in a lower rate than that of the preceding year; one admission was due to an eruptive fever—measles; *simple continued fever* caused 12 admissions; one illness was fatal; respecting a case of this disease which occurred towards the end of the voyage of H.M.S. "Jumna" to Bombay, in the month of March, the Medical Officer states, that the symptoms assumed a typhoid character, and the man was transferred to hospital at Bombay.

The admissions for *Diseases of the Constitutional Group*, are in a lower rate than that of 1874; most of them were due to syphilis; the death in this group was that of a man in whom affection of the brain came on in the course of an attack of acute rheumatism.

Diseases of the Respiratory System.—The rate of admissions of diseases in this order is more than double, and the rate of mortality is four times higher than that of the preceding year. Bronchitis, and pneumonia, caused all the admissions, excepting four which were due to pleurisy. The deaths resulted from pneumonia, and except one, all of them occurred amongst men proceeding to India. The Medical Officer in charge of the troops on passage to Bombay in H.M.S. "Jumna," on board of which 16 admissions from pneumonia took place, writes in connection with them:—"I am informed that "there were four cases of a similar nature among the crew of the vessel. The "type of the disease was what is generally termed acute croupous pneumonia; "very few of the cases presented catarrhal or bronchitic symptoms, and it is "remarkable the immunity there was generally from these latter affections "during the time the pneumonia prevailed. . . . . The occurrence of so "many cases naturally calls for an inquiry into the cause or causes in which "the affection originated. I understand that on several occasions pneumonia "has prevailed in a similar way on board some of the other troop ships but "unfortunately I have not at my disposal any account of the fact; I am told, "however, that there were two cases among the crew of the vessel in the "corresponding voyage of last year. It may be well to turn attention to the "following points with the view of ascertaining the cause, namely, 1st, over-"crowding; 2nd, temperature; 3rd, exposure; 4th, epidemic influence."

INJURIES.—*Accidental.*—The death returned in this order was from drowning.

II. TROOPS RETURNING FROM ABROAD.

The number of effective troops embarked for England from abroad, was 6,431, giving an annual average strength of 620 non-commissioned officers and men. The admissions into hospital were 289, and the deaths 3, being in the annual rates of 466· and 4·84 per 1,000 men respectively; both are much lower than the corresponding rates of 1874, but the results of that year were disturbed by the influence on them of the sickness occurring in the troops returning from the Gold Coast Expedition. Taking 1873 as the year for com-

Troops on Board Ship.

parison, it is seen that in the present year the rate of admissions is higher but the rate of deaths is little more than one-third of the corresponding rate of that year.

The following Table shows the admissions and deaths in the different classes and orders of diseases :—

		From all Stations Abroad.			
	No. of men Embarked	6,431			
	Average *Annual* Strength	620			
Order.	Diseases.	Admitted.	Died.	Ratio per 1,000	
				Admitted.	Died.
	I. *General Diseases.*				
1	Febrile Group	40	..	64·5	..
2	Constitutional ,,	60	..	96·8	..
	II. *Local Diseases.*				
	Diseases of the—				
1	Nervous System	3	1	4·8	1·61
2	Eye	8	..	12·9	..
5	Circulatory System	1	..	1·6	..
6	Absorbent ,,	7	..	11·3	..
8	Respiratory ,,	36	2	58·1	3·23
9	Digestive ,,	42	..	67·8	..
10	Urinary ,,	20	..	32·3	..
11	Generative ,,	3	..	4·8	..
12	Organs of Locomotion	1	..	1·6	..
13	Cellular Tissue	10	..	16·1	..
14	Cutaneous System	26	..	41·9	..
	III. *Conditions.*				
	Debility	5	..	8·1	..
	IV. *Poisons.*	2	..	3·2	..
	V. *Injuries.*				
2	Accidental	25	..	40·2	..
	Total	289	3	466·0	4·84

General Diseases.—*Febrile Group.*—There were 2 admissions on account of *measles*, on board H.M.S. "Malabar," the disease being at the time epidemic amongst the children on board. *Enteric fever*, caused 1 admission, that of a man of the 107th Regiment, on the voyage from Bombay in H.M.S. "Malabar." In this corps also on the same voyage, there were 5 admissions for simple continued fever, 2 cases of which on arrival were sent to hospital at Portsmouth. *Ague*, caused more than half of all the admissions in the febrile group.

Diseases of the Nervous System.—The death in this order was from encephalitis.

Diseases of the Respiratory System.—Of the admissions in this order 6 were due to pneumonia; 2 of the cases were fatal.

III. Troops proceeding by Sea from one Station to Another.

Troops on Board Ship.

The number of non-commissioned officers and men of the white troops embarked was 3,599, giving an average annual strength of 186; the admissions into hospitals were 62; there were 2 deaths; the rate of admissions is 333·3, and of deaths 10·74, per 1,000 of the mean annual strength.

The strength of the non-commissioned officers and men, black troops, embarked for passage from one station to another abroad, was 109, giving an annual average strength of 15; the admissions into hospital were 12, being in the annual rate of 923·1 per 1,000 of the strength.

The classes and orders of diseases by which the admissions and the death were caused amongst the troops in this section, are shown in the following Table:—

		White Troops.				Black Troops.			
	Strength embarked	3,599				109			
	Average *Annual* Strength ..	186				13			
				Ratio per 1,000.				Ratio per 1,000.	
Order.	Diseases.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
	I. *General Diseases.*								
1	Febrile Group	4	..	21·5	..	..	..	..	..
2	Constitutional „	9	..	48·4	..	4	..	307·7	..
	II. *Local Diseases.* Diseases of the—								
1	Nervous System	1	..	5·4	..	..	..	..	..
5	Circulatory System	1	1	5·4	5·37	..	..	..	..
6	Absorbent „	1	..	5·4	..	..	..	..	..
8	Respiratory „	5	..	26·9	..	..	..	..	..
9	Digestive „	12	..	64·5	..	1	..	76·9	..
10	Urinary „	3	..	16·1	..	3	..	230·8	..
11	Generative „	..	..	..	..	1	..	76·9	..
12	Organs of Locomotion ..	..	..	..	..	1	..	76·9	..
13	Cellular Tissue..	6	..	32·2	..	..	..	..	..
14	Cutaneous System	2	..	10·7	..	..	..	..	..
	IV. *Poisons*	1	..	5·4	..	..	..	..	..
	V. *Injuries.*								
2	Accidental	17	1	91·4	5·37	2	..	153·9	..
	Total	62	2	333·3	10·74	12	..	923·1	..

The deaths amongst the white troops embarked were from disease of the heart, and from accidental drowning.

IV. Invalids returning to England.

The number of invalids embarked for England was 2,856, giving an average annual strength of 261 non-commissioned officers and men. There were 34 deaths at sea amongst invalids; as in former years, they have been added to those of the troops in the Commands from which the men were invalided.

APPENDIX.

APPENDIX No. I.

REPORT ON HYGIENE FOR PART OF 1875.

By F. de Chaumont, M.D., Surgeon-Major, Acting Professor of Hygiene, Army Medical School, Netley.

In the last report furnished by the late Dr. Parkes, he carried down his account of the progress of hygiene to the early part of 1875, only a short time before the illness, which was the commencement of his fatal malady, attacked him. The irreparable loss which his death has inflicted upon this country and the world at large, has been eloquently set forth by more than one renowned writer, in tones that have found an echo in the hearts of men of all ranks in every civilised land. One of the most valuable of his many good works was the series of reports on the above subject which he furnished annually to this blue-book. The last volume was published so soon after the previous one that there was no time for the preparation of a report, and now the hand is still that did the work so well. At the present time, both on account of a very great pressure of work, and also because it has been called for a good deal sooner than I anticipated, I am unable to do more than offer a very brief and meagre notice of some points of hygienic importance published in 1875, and I do so, less because I hope to give an abstract of much present usefulness, than from a desire not to break too much the continuity of these reports. I hope in the next volume to be able to offer one more extended, and giving a better précis of what has been done in the Science of Hygiene.

State Medicine.—General Hygiene.—The subject of state medicine is attracting great attention in all quarters, and diplomas are now given in several schools, Cambridge, Edinburgh, Dublin, and London Universities, whilst others will in all probability follow the example thus set. Doubtless by and bye a diploma of the kind will be a necessity for holding public appointments. With a view to draw attention to the subject, the Society of Apothecaries requested me to deliver a course of six lectures at their Hall in Blackfriars during May and June 1875. These lectures have since been published at the request of the Society.*

A new sanitary journal, the *Sanitary Record* was commenced by Messrs. Smith, Elder & Co. in 1874, and has been continued with success. Articles on the subject of hygiene have also been numerous in other journals.

In France, *Le Journal d'Hygiène* has been commenced by Dr. Prosper de Pietra Santa.

An ingenious paper by Dr. Richardson, F.R.S., read before the Social Science Congress at Glasgow, attracted a good deal of attention. It was a sketch of an ideal city of health, Hygiea, in which all sanitary appliances were to be carried out in perfection, with the effect of reducing the death rate to 5 or even less per 1,000; amid much that was fanciful there were many interesting points in it, although the prospect of such a state of things must be remote, if ever at all conceivable, until man in general is very different from what he is.

I may also notice the "Dictionary of Hygiene," compiled by Mr. A. W. Blyth, on the basis of Ambrose Tardieu's work.

The American Government is still active in its publications, among which have been the "Report on the Hygiene of the United States Army," by

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* Smith, Elder, & Co.

Assistant Surgeon Billings, and the "Report on the Hygiene of the Navy," both containing much valuable information.

In this country the publication of the reports of the Medical Officer of the Privy Council is happily being continued, affording as they do a body of information of the highest possible value. It may be proper here to refer to the loss the Department of Public Health has sustained in the retirement of Mr. J. Simon, who has done so much for the health and well-being of the nation. The office, in a somewhat altered form, has been conferred upon a worthy successor in the person of Dr. E. C. Seaton.

Sanitary Legislation.—The chief sanitary measures were the consolidation of previous sanitary measures in the Public Health Act, already alluded to in last report, the amended Adulteration Act, and the Labourers' and Artizans' Dwellings Act. The River Pollutions Bill did not pass, but in a modified form it will probably become law in this present Session (1876).

Soil, &c.—One of the most important works of the year has been the report of Messrs. D. D. Cunningham and T. Lewis on the carbonic acid in the soil, the height of the ground water, the meteorological conditions of the atmosphere, and the amount of cholera, fever, dysentery, &c., in Calcutta. It is the commencement of what we may hope will prove a most valuable course of investigation as to the causation of disease. The experiments were carried on during the years 1873 and 1874, and the results are tabulated as well as shown by means of graphic representation. The temperature of the soil was obtained from thermometers thrust into it through the sides of a bricked pit and protected by a wooden plug. The air for CO_2 was drawn by means of leaden pipes having a perforated bulb end inserted through an inverted flower-pot; the depths chosen being 3 and 6 feet. The ground water was measured in the usual way. The general conclusions are the following :—

The air temperature does not affect the CO_2 of the soil.
The wind does not affect the ,,

The chief factor affecting the CO_2 of the soil is moisture, rainfall influencing the upper stratum, the ground water the lower. The greatest amount of CO_2 is in the lower stratum :—

Maximum in upper	7
,, in lower	12
Minimum in upper	3
,, in lower	7

Volumes per 1000.

The CO_2 in the two strata diverge when low, and approach each other when high. This is the reverse of what has been observed at Munich.

The amount of cholera varies inversely as the height of the ground water, in accordance with Pettenkofer's views.

The maximum of fever corresponds with the maximum of CO_2 in soil and the highest ground water.

Dysentery shows two maxima, one at the rise of the water level and the other at the same point in the fall.

Temperature of the soil varies as follows :—

In hot weather the upper layer is hottest, in cold the lower layer, and the conditions are these—

Hot weather.	*Cold weather.*
Air, hottest	Lower stratum of soil, hottest.
Upper stratum of soil.	Upper ,, ,,
Lower ,, ,,	Air.

During rain this correspondence ceases.

Air.—Numerous papers on air have appeared and a large number of appliances for ventilation recommended. Among others, the system patented by Tobin has attracted a good deal of attention, and been the subject of much controversy. It has been applied on an extensive scale to St. Mary's Hospital, Paddington, the condition of whose ventilation I examined in July 1875, at the request of the committee of management. The peculiarities of construction of the building seemed to make it well adapted for the introduction of Tobin's tubes, as suggested by Mr. Salter, the architect. Some very interesting points came out in the experiments, but as I am about to begin a second series for comparison since the alterations, I shall defer mentioning them in detail until next report.

With regard to the construction of hospitals there seems a somewhat strong tendency, particularly in America, to favour one-storeyed buildings of inexpensive materials. The recent advance made in the use of concrete, as shown by Messrs. Lascelles, Tall, &c., at the Institute of British Architects, seems to promise an excellent and durable material, by means of which strong, water-tight, fire-proof buildings may be constructed, which can be warmed and ventilated with ease and without danger.

Some interesting papers have appeared by M. Schlœsing in the "Comptes Rendus,"* on the subject of ammonia in the atmosphere, and its relation to the soil and water. Although directed chiefly to Agricultural purposes they may ultimately have some value hygienically as well.

Hygrometry.—Mr. Lowe has introduced a new arrangement of hygrometer (or psychrometer) called the Hygrodeik, to facilitate the rapid reading off of the relative humidity by the dry and wet bulb instrument.

Pressure.—I may notice a work by Jourdanet, whose observations are already well known, "Influence de la pression de l'air sur la vie de l'homme (Masson).

Water Analysis.—The controversy still goes on between the supporters of Frankland and Wanklyn as to the comparative value of the methods of estimating the organic constituents. For the public services, Frankland's method is out of the question except in stationary laboratories, and Wanklyn's albuminoid ammonia process, although imperfect in its indications, remains as yet the only practicable method. There is, however, an advantage in continuing along with it the determination of the oxygen required for organic matter by the permanganate test.

Mr. J. Falconer King, the city analyst of Edinburgh, proposes to use caramel as a comparison test for the ammonia process ("Chemical News"). We had tried this at Netley previously, but found it difficult to get the tint sufficiently correct to be practically useful. Mr. Wanklyn suggests the employment of the soap test for determining the magnesia in water. This is simply Boutron and Boudet's method, which we have used at Netley for many years. It gives fairly accurate results when carefully done, but requires practice.

Mr. E. Nicholson proposes a new method for the estimation of nitrites in water, by first setting free the iodine by means of sulphuric acid, and then liberating the free iodine either with arsenious acid or by means of a colour test with iodine of potassium, starch and permanganate of potassium. I have not tried this yet, so as to speak of its practicability.

Dr. J. D. Macdonald, R.N., F.R.S., Professor of Naval Hygiene at Netley, has published a "Guide to the Microscopical Examination of Drinking-Water" (Churchill), which has proved a most useful work. It is used as a text book at Netley, and has proved very convenient for the purpose. The drawings (with a few exceptions, such as the plate of Bacteria from Cohn) are original and from nature by the author himself.

Water Filtration.—An important point has been brought out by the report of the River Pollution Commission—viz., the tendency of animal charcoal to favour the growth of the lower forms of life. This has induced Mr. Bischof to make a change in his spongy iron filter, which originally used animal charcoal in part. For this, prepared sand is now substituted, consisting of very fine gravel mixed with pyrolusite; by this means a filtering medium is obtained entirely free from matter of organic origin. I am at present engaged in making an experimental inquiry into the working of this and other filters.

Major Crease has introduced a very useful form of his filter for ambulance and field purposes, it can be used either as an ordinary or a cistern filter.

Food and Adulteration.—The Society of Public Analysts has held numerous discussions on the question of adulteration, and has decided at least provisionally, upon the following standards, which may be useful to medical officers.

New Milk to contain not less than 9 per cent. by weight of solids not fat.
" " not less than 2·5 of butter fat.

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* "Comptes Rendus de l'Academie," 1875, vols. i. and ii.

Skim Milk to contain not less than 9 per cent. of solids not fat.
Butter „ „ 80 „ of butter fat.
Tea to contain not more than 8 per cent. of mineral matter calculated on the tea dried at 100° C., of which 3 per cent. shall be soluble.
Tea to contain at least 30 per cent. of extract as sold.
Cocoa „ 20 „ of cocoa fat.
Vinegar „ 3 „ of acetic acid.

With regard to tea, Mr. Wigner contributes[*] a long and exhaustive paper on the subject. He does not consider the determination of the extract of much use as a guide to the relative value of the tea, although it may be useful as indicating whether or not old leaves have been mixed with the sample. He points out, however, that as much may be known from the ash, which is usually about 5·8 to 6 per cent. in genuine teas, of which about one half or more is soluble in water. He also points out the hygroscopic properties of tea if exposed to the air. This is well known, so much so that in India and China tea is a favourite bed for keeping cigars, in the belief that it keeps them dry by absorbing the moisture itself.

At Netley all the tea taken into use in the hospital is analysed, and the following may give an idea of the composition of it, the price by contract being 2*s.* 4*d.* per lb.—

	1	2	3	4	5	6	7	8	9	10
Water per cent. ...	10·4	9·9	8·2	9·3	8·2	7·1	6·6	5·5	4·3	5·3
Solids	89·6	90·1	91·8	90·7	91·8	92·9	93·4	94·5	95·7	94·7
Extract	27·0	27·2	28·2	30·1	30·5	31·9	31·1	32·2	26·5	26·7
Ash	5·1	6·3	5·6	7·23	6·4	6·3	6·5	6·6	7·0	6·8
Acidity of infusion (as oxalic acid)	1·9	2·1	3·1	2·8	2·4	2·8	2·6	2·9	2·8	2·9
Alkalinity of ash (as soda)	0·11	0·43	0·1	0·56	0·17	0·36	0·38	0·3	0·35	0·377
Chlorine of ash... ...	0·055	0·067	0·050	0·120	0·062	0·082	0·062	0·073	0·075	0·089

Of these, No. 4 was not a contract sample. Nos. 1, 2, 3, 5, 6, 7, 8, were reported good, and equal to the sample. Nos. 9 and 10 were condemned as inferior, the amount of extract being small and the flavour inferior.

On the subject of adulterations I may notice a new edition of Hassall's work, and also a new edition of Chevalier and Baudrimont's "Dictionnaire des Falsifications."

Scurvy.—Mr. Galloway has published a small pamphlet with the view of urging that scurvy is due chiefly to salt meat being deprived of some of its salts, especially the potash and phosphoric acid; he thinks that if these were restored that scurvy might be cured. He even suggests that the small amount of potassium-phosphate in lime-juice may be the efficient agent, and takes exception to Dr. Parkes, who thought it unlikely on account of the smallness of the quantity —about half a grain to the ounce. The *onus probandi* certainly lies with Mr. Galloway. In connection with this point I may refer to the researches of Panum[*] who investigates some points of nutrition. He shows that pure albuminates may (in contradiction to Liebig's views) be assimilated by dogs even when deprived of salts. The addition of phosphate of potash to a diet of powdered albuminate, fat, starch, and water, did not increase its nutritive value, either as shown by the production of urea or by preserving weight. The chief effects were: more water drunk and greater loss by insensible perspiration. The amount of potassium phosphate required was very small, and might be supplied by barley or almost any food. This being the case, how can the small amount of phosphate of potash in lime-juice be the efficient agent? It is also well known that scurvy may be induced by mere monotony of food when all the necessary constituents are present.

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[*] "Chemical News," vol. xxxii.

[†] "Nordiskt Medicinskt Arkiv.," vol. vi., No. 19; see "Medical Record," 14. 4. 76.

Alcohol.—On the vexed question of alcohol the most important contribution has been the monograph of the late Dr. Parkes, "On the issue of a Spirit Ration in the Ashanti Campaign," in which the evidence is reviewed with great judgment and without bias. A number of medical officers and others believed it useful under certain circumstances, particularly when taken quite at the end of the day's work, with a prospect of some hours' rest before starting afresh, while the use of spirits was condemned by all during actual work.

On nutrition generally I may call attention to a curious paper by M. Béchamp.* He notes the existence of what he calls microzymes generally in all the organs of the body. These may be described as minute, granular, particulate, and insoluble bodies, which appear to be the active elements on assimilation. They can be separated by a special process, and their action in starch and sugar studied. Those of all the organs in the body are active on starch and sugar, except from the brain. On the other hand, in the very young fœtus the brain microzymes are active. The microzymes of the fœtus are generally active on sugar, but not on starch; the power of acting on the latter increasing with the age of the fœtus, until at the time of birth it differs but little from that of the adult organs.

Disinfection.—Numerous new disinfectants are continually being proposed, amongst others is Langston Jones's universal disinfecting powder, consisting of the chlorides of sodium and calcium and the sulphate of zinc. This is efficacious to a certain extent, but not very powerful; it has the advantage of being itself inodorous. Another substance is the powder of Lueder and Leidloff, consisting of sulphates of protoxide and peroxide of iron, free sulphuric acid and sulphate of lime. This is well spoken of, and appears to be efficacious to a considerable degree.

THE SPREAD OF DISEASE.

Contagious Pneumonia.—Mr. A. Winter Blyth (in his report to the Okehampton Sanitary Authority) calls attention to the apparently contagious nature of an epidemic of pneumonia, in which he sees evidence to support the view taken by Dr. Christian Budd. Similar views are also held by Dr. Grimshaw in his report of the Cork Street Fever Hospital, Dublin.†

Plague.—The plague has been again seen to appear in the East, and the interesting paper by Mr. Netten Radcliffe, read to the Epidemiological Society, has called attention to the possibility of its again visiting Europe. Even though it did do so it would probably be shorn of much of its terror, and would not be able to hold its own any more than typhus, which has been almost stamped out in places where not many years ago it was rife.

Cholera.—A translation of Pettenkofer's little treatise on the prevention of cholera has been published (with an introduction and appendix) by Mr. T. W. Hime, M.B. It gives a good *résumé* of the subject.

Another important work is the report by Pettenkofer of the Outbreak of Cholera among Convicts at the Prison of Laufen, in Bavaria, in which the evidence is certainly negative as to personal communication of disease. Dr. Tholozan has also published a treatise "Sur le Choléra." I must also mention the "History of the Cholera Epidemic of 1873 in the United States of America," published by the Government. Dr. Decaisne has also published a monograph, "La Théorie tellurique de la Dissémination du Choléra."

Enteric Fever.—Professor A. Vogt, of Bern, has published an important work, "Trinkwasser oder Bodengase," in which he investigates the causation of typhoid fever, and gives the chief place to Pettenkofer's views. He holds that the locality is the chief factor, and that the propagation by drinking-water is illusory. Of other works on the subject I may note:—Broel's, of Nabburg, "Ueber die Aetiologie des Typhus"; Russell's account of the Glasgow epidemic, apparently traceable to infected milk; Buchanan's report on the Croydon epidemic; Donnet's report on Typhoid in the Channel Fleet in 1870, apparently traceable to impure drinking-water taken in at Vigo and Lisbon; and many other papers.

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* "Comptes Rendus," 1875, vol. ii., 226.

† See "Medical Record," September 15th, 1875.

Measles.—One of the most remarkable events of the year has been the extraordinary epidemic of measles in the Fiji Islands, in which at least 50,000 natives perished.

Scarlatina.—On this subject Dr. Tripe has written an interesting paper, in which he tries to show that the disease comes in regular waves, which can be, to a certain extent, foreseen. He seems to think that there is some cause of propagation at work which is likely to baffle any efforts at repression.

The remarkable outbreak of scarlatina among the family and guests at a house in South Kensington has been investigated by Dr. Buchanan. The evidence seemed to point to some article of food consumed by all, and most probably to the cream. Careful inquiry, however, failed to elicit anything like conclusive evidence.

Small-pox and Vaccination.—The usual amount of fanatical opposition to vaccination has taken place, and the most absurd statistics published; some with a view to show that vaccination enormously increases the susceptibility to small-pox! On this question an interesting pamphlet has been published by Dr. J. Summerfield Conrad, of Baltimore, giving the experiences of the epidemic of 1871–2–3. There were 1,246 patients, of whom 42 per cent. died. Only 250 had any satisfactory evidence of vaccination. Among the perfectly vaccinated only 2 per cent. died, while among the unvaccinated 53 per cent. died. There was not a single death in the whole number treated where the patient had a good mark from vaccination done after puberty.

Contagious Diseases Prevention Acts.—The agitation against these Acts has been active, but has failed to shake the confidence of the Government in their efficacy. Accumulating evidence shows the benefit derived from them, both to the Army and Navy, and to the civil population as well. As these points are fully entered upon in the Statistical Returns it is unnecessary to go more into detail here.

Propagation of Disease by Germs.—I cannot do more than refer to some of the works and papers on this subject; among these are:—Dr. Burdon Sanderson's lectures, "On the occurrence of Organic Forms in connection with Contagious and Infectious Diseases," delivered at Owen's College, Manchester. MM. Braidwood and Vacher's reports to the British Medical Association on the Life History of a Contagium. Dr. Birch-Hirschfeld, of Dresden, "On the Recent Pathologico-Anatomical Researches on the Occurrence and Significance of the Lower Fungus Forms (Bacteria) in Infectious Diseases"; Schmidt's Jahrb. Bd., 166, No. 2 (1875). Dr. H. E. Richter, of Dresden, contributes a similar paper to the No. 1 of 168 Bd. of the same journal. Both of these are very voluminous and exhaustive in their account of the literature of the subject.

DISPOSAL OF THE DEAD.

Much interest has been excited by the proposals for cremation, which found advocates in Sir Charles Dilke, Sir H. Thompson, and other distinguished persons. Mr. Seymour Haden, on the other hand, enlisted much sympathy for his suggestion of perishable coffins, which would favour the rapid decay of the body, in the belief that the soil would quickly dispose of the organic products. This last point is not certain; it will, however, be long before prejudice will be so far overcome as to admit cremation as a general practice, in spite of its undoubted advantages.

APPENDIX No. II.

REPORT ON THE PREVALENCE OF AGUE AND MALARIA AT TILBURY FORT, IN CONNECTION WITH THE SOURCE OF WATER SUPPLY.

By Surgeon-Major J. G. Faught.

Tilbury Fort, on the bank of the Thames in the Essex Marshes, is supplied with rain water, which is collected on the roofs of the various buildings in the Fort, and before entering two underground tanks of cement, passes through a rough filter of charcoal and gravel. Both tanks communicate, but have two separate filters, the water passing upwards through these filters; and each tank has a separate collecting ground.

The tanks at Tilbury Fort are: the old tank, containing 24,000 gallons, is 280 ft.; and the new tank, containing 22,437 gallons, is 390 ft. distant from high-water mark.

These filters were built in 1873, previous to which date there was no means of purifying the tank water.

The tanks requiring cleaning and repair, spring water was obtained for the use of the troops from the Tilbury Railway Station, from 13th December 1873 to 16th October 1874, for drinking and cooking purposes.

The tanks in the Fort having been repaired, and a sufficient quantity of rain water collected in them, an opinion was called for as to the quality of the water so collected; and calling to my aid the Public Analyst of Gravesend, he furnished a report, which was sent to the Deputy Surgeon-General, Chatham.

This report was unfavourable, and the water so analyzed was stated to be very impure.

The tank water, however, was brought into use again on the 17th October last, and the spring water was discontinued.

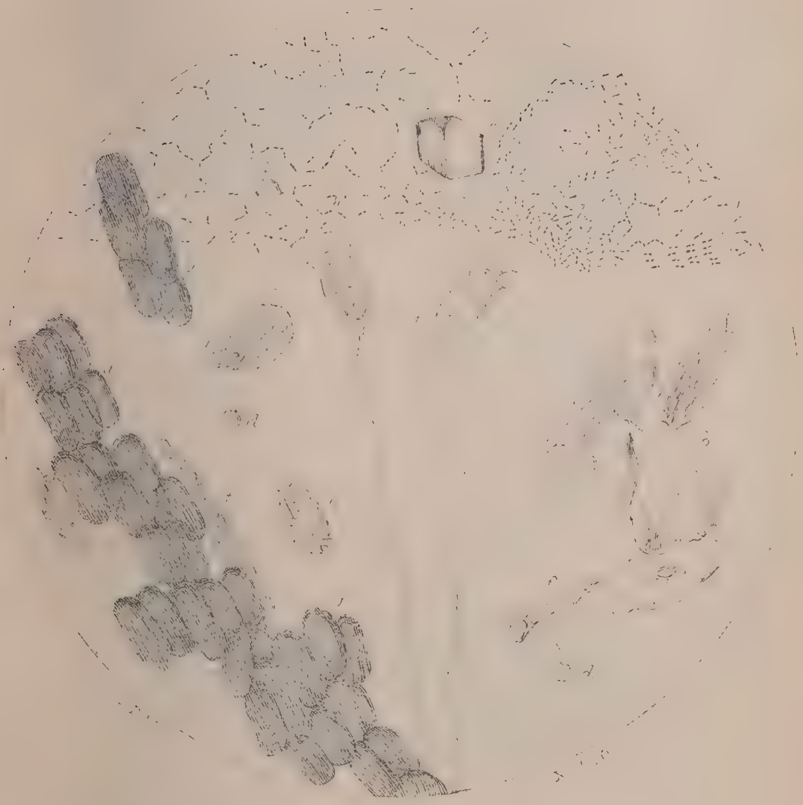
I can in no very satisfactory way account for this tank water on analysis being found so impure, but by supposing that underground tanks in marsh land become damp, and the river mud so penetrating, that lowly organized forms of animal and vegetable life are generated, which form the basis of the organic matter which on analysis was discovered in sufficient quantity to condemn the water.

The railway water is spring water, and is pumped up from an ordinary well at Low Street, a station on the Tilbury and Southend Railway. In a straight line from the Thames it is about 1½ miles inland, and at the foot of some low lying hills.

It is about 1½ miles from Tilbury Station, and must be very pure, as I am informed that steam-engines get out of order if very pure water is not used.

Not many years ago, it was intended to lay on pipes from this source to Tilbury Fort, but it was for some reason or the other abandoned. I have placed myself in communication with the engineer to these waterworks, but have not as yet been furnished with his report.

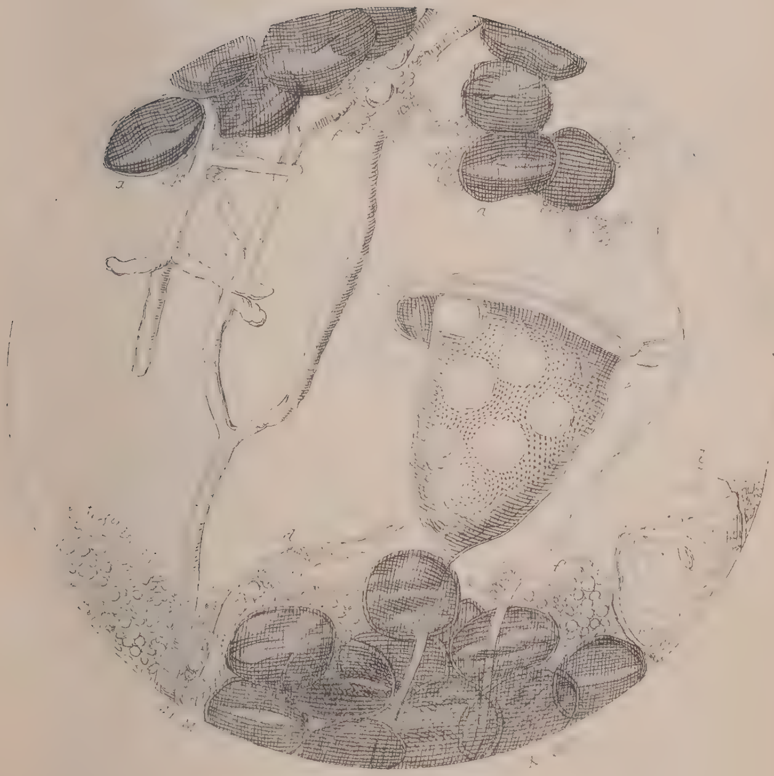
Not only do the railway *employés* drink this water, but a small body of Coastguard men, stationed in a vessel which lies on the mud bank of the Thames just outside Tilbury Fort fortifications, are also supplied with spring water from the railway station, and a vessel is no barrier to ague and malaria.



References

a.a.a.	Brown Vegetable cells. (probably Sporangial.) probably disengaged gonidia of lichens (Leighton).
b.	Scales of Epithelium.
c	Glaucoma scintillans.
d.	Monas lens.
e.e.	Aspidisca denticulata, or Coccudina
f.f.'	Oxytricha gibba. f' young.
g	Vorticella Convallaria
h.	Bacterium termo in a broad sheet.
i	Localized groups of a larger form.
k.	Crystalline particles, probably quartz

Nº 2.



References.

a.a.a. Brown [illegible]

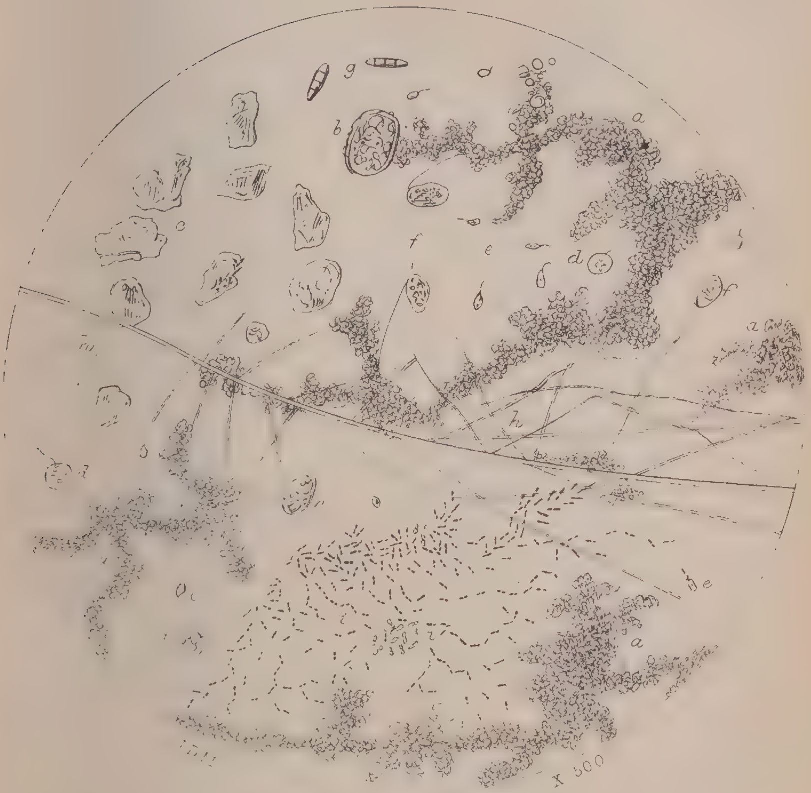
b. Epithelial [illegible]

c. Mycelium of a Fungus

d. Oxytricha [illegible]

e Vorticella convallaria

f.f.f. Amorphous matter containing the spores of fungi & Bacteriform puncta of minute size in gelatinous films



References.

a.a.a.	*Amorphous granular matter.*
b.	*Shell of a Difflugia of small size*
c.	*Epithelial particles.?*
d.d.d.	*Monas lens*
e.e.e.	*Monads of smaller size*
f.f.f.	*Pleuromonas jaculans*
g.	*Sporangia of fungus*
h.h.	*Minute colourless Oscillatorians attached to a filament.*
i.	*Bacterium termo, i′ patch of larger form as in N° [illegible]*

I will now proceed to state a few facts concerning the health of the troops at Tilbury Fort. This fort has been found so unhealthy, that of late years the troops have been relieved every six months.

The 7th Battery, 17th Brigade, under the command of Major Chichester, arrived at Tilbury Fort on the 18th December 1873, and were relieved on the 10th July 1874. During the whole of this time, the tanks being under repair, the men were supplied with spring water for drinking and cooking purposes from the railway station. The average strength of the Battery was 90 during this period. The admissions into hospital for ague from this Battery during the whole time it was quartered at Tilbury Fort—nearly seven months—was one, and this case was only in hospital five days. This admission occurred on the 1st January 1874, not many days after the arrival of the Battery.

During the first six months of 1873 another Battery—average strength, 102—of the same Brigade being quartered at this fort, the admissions for ague were 12: and for the same six months in 1872, the admissions for ague in the Battery—average strength, 103—then stationed at Tilbury Fort, were 34. During these periods tank water was used for purposes of diet.

The half-Battery 4 | 15th Brigade, occupy the fort at present. It has recently returned from Gibraltar, and has occupied the fort since the 1st November 1874, strength 53. There have been four admissions from ague in men who never had ague before, and two of these men had to be sent on furlough, being much debilitated by malaria. During this period tank water was also used for purposes of diet.

There are no villages in the neighbourhood of this fort to draw comparisons from, but there are the railway *employés* at Tilbury Station, and the men of the Coastguard, living under not very different circumstances as regards locality.

The Coastguards occupy a ship lying in the river mud just outside Tilbury fortifications. There are 10 men, 7 women, and 20 children. The Warrant Officer informed me they never suffer from malaria, and a case of ague is hardly known amongst them. The men have all been stationed there from over one to five years, and are very hale looking men.

There are some 60 men, besides women and children, belonging to Tilbury Station, and occupying houses close by. The men have been there for various periods up to five years. The Station-Master informs me that ague is very uncommon, and malaria not known amongst his men.

It is a curious fact that neither the Railway or the Coastguard men suffer from ague or malaria as the men at Tilbury Fort suffer, and that when you put a Battery stationed at Tilbury Fort under the same conditions as regards their water supply as the Railway and Coastguard men are placed in, their health will at once compare favourably with the health of these men.

Report on Samples of Drinking Water from the Gravesend District.—Received March 1875.

No. 1 Sample.

Labelled "Spring Water from the Railway Station Well at Low Street, "2 miles from Tilbury Station, and about 1½ miles in a direct line from the "Thames." (Signed) J. G. Faught, Surgeon-Major, Gravesend, February 18th, 1875.

Physical Examination.—Slight yellow colour through a depth of 14 inches, no smell, taste pleasant, some sediment.

Microscopic Examination.—Numerous organisms visible, *see* drawing appended.

Hardness.—Total	....	25° 55	(Clark's Scale).
Fixed	....	9° 45	,,
Removable	....	16° 10	,,

Quantitative Analysis.—

	milligrammes per litre.	Grains per gallon.
Volatile matter		7·000
Oxygen required for organic matter	0·4201	
Free ammonia	0·1584	
Albuminoid ammonia	1·2116	
Nitrous acid	0·2350	
Nitric acid	45·4140	
Chlorine		3·330
Sodium combined with chlorine		2·157
Calcium carbonate		10·740
Fixed salts of calcium and magnesium		9·450
Other substances (sulphate and carbonate of sodium, &c.)		5·473
Total solids		38·150

The substances in excess are: Fixed hardness (largely), volatile matter, free ammonia, albuminoid ammonia (largely), nitrous acid (slightly), nitric acid (very largely); total solids. Oxygen for organic matter low.

No. 2 Sample.

Labelled "Rain water, collected in underground tanks. It passed through "a rough filter before entering the tanks." (Signed) J. G. Faught, Surgeon-Major, Gravesend, February 18th, 1875.

*Physical Examination.—*A strong yellow tinge, some sediment, smell mouldy, taste earthy and mouldy.

*Microscopic Examination.—*Numerous organisms, *see* drawing.

Hardness.—		
Total	10° 50	(Clark's Scale).
Fixed	5° 95	,,
Removable	4° 55	,,

Quantitative Analysis.—

	Milligrammes per litre.	Grains per gallon.
Volatile matter		6·300
Oxygen required for organic matter	1·3400	
Free ammonia	0·0918	
Albuminoid ammonia	1·0667	
Nitrous acid	2·1850	
Nitric acid	18·0000	
Chlorine		12·872
Sodium (combined with chlorine)		8·339
Calcium carbonate		3·040
Fixed salts of lime and magnesia		5·950
Other substances (sulphate and carbonate of sodium, &c.)		4·799
Total solids		41·300

The substances in excess are: Fixed hardness, volatile matter, oxygen required for organic matter, free ammonia, albuminoid ammonia (largely), nitrous acid, nitric acid (largely), chlorine (largely); total solids.

No. 3 Sample.

Labelled "Rain water from a tank in Tilbury Fort, recently analyzed at "Gravesend, and was used by the troops for drinking purposes lately. The "pump being out of order, the other tank was brought into use." (Signed) J. G. Faught, Surgeon-Major, Gravesend, February 22nd, 1875.

Physical Examination.— Colour markedly yellow, not much smell, taste earthy and slightly brackish, sediment rather marked.

Microscopic Examination. *See* Drawing.

Hardness.—Total	19° 25	(Clark's Scale).
Fixed	15° 05	"
Removable	4° 20	"

Quantitative Analysis.—

	Milligrammes per litre.	Grains per gallon.
Volatile matter		14·000
Ox required for organic matter	1·4200	
Fre mmonia	0·0700	
Albuminoid ammonia	1·0777	
Nitrous acid	1·4950	
Nitric acid	12·6222	
Chlorine		33·945
Sodium (combined with chlorine)		21·993
Calcium carbonate		2·800
Fixed salts of calcium and magnesium		15·050
Other substances (including sulphates and carbonates of sodium and potassium, &c., &c.)		57·462
Total solids		145·250

The substances in excess are: Fixed hardness (very largely), volatile matter (very largely), oxygen required for organic matter, free ammonia, albuminoid ammonia (largely), nitrous acid, nitric acid (largely), chlorine (very largely), other substances (very largely), total solids (very largely).

Remarks.

All the three waters have the albuminoid ammonia much in excess, but in Nos. 2 and 3 (the tank waters), the oxygen required for organic matter is in excess, whereas in No. 1 (the railway station water) it is in small quantity. The amount of nitric acid is largest in No. 1, shewing that oxidation of organic matter had been most active there. It is quite clear that in Nos. 2 and 3 water had penetrated in large quantities from the surrounding ground into the tanks, and that the name of rain water applied to them was absurd. As I understand that the fever practically ceased when the use of No. 1 water was resorted to, we may gather from the analysis that the probable poison in Nos. 2 and 3 was an *oxidisable organic substance*, but not necessarily a nitrogenous one, seeing that the albuminoid ammonia was really in greatest excess in No. 1, apparently the least harmful water. The free ammonia was also in excess in No. 1, but this is probably one of the steps in oxidation, and therefore accords with the other characters. If we may draw any conclusions at all upon such a difficult and doubtful subject, they will be the following :—

1. That some poison existed in Nos. 2 and 3 that was absent in No. 1.
2. That the poison was probably of an organic nature, and that it was oxidisable.
3. That freëst oxidation existed in the least harmful water.
4. That if the same poison had at any time existed in No. 1 water, it was rendered innocuous by oxidation.
5. That as the chemical analysis proves soakage of water from the surrounding marsh into tanks Nos. 2 and 3, the poison was in all probability derived from the marsh.

Microscopic Examination.

This was undertaken by Dr. J. D. Macdonald, R.N., F.R.S., whose drawings accompany this report.

The following is a list of the objects seen, and their distribution in the three samples :—

List of Microscopic objects noted.

Objects.	No. 1.	No. 2.	No. 3.
1. Brown vegetable cells	Yes.	Yes.	—
2. Scales of epithelium	Yes.	Yes.	Yes.
3. Glaucoma scintillans	Yes,	—	—
4. Monas lens (and smaller ones)	Yes.	—	Yes.
5. Aspidisca denticulata	Yes.	—	—
6. Oxytricha gibba and young	Yes.	Yes.	—
7. Vorticella convallaria	Yes.	Yes.	—
8. Bacterium Termo (in a broad sheet) ..	Yes.	absent at first, but appeared in a few days.	Yes.
9. Localized groups of a larger form of Bacterium	Yes.		Yes.
10. Crystalline particles	Yes.	—	—
11. Mycelium of a fungus	—	Yes.	—
12. Amorphous matter, containing the spores of fungi and bacteriform puncta ..	—	Yes.	—
13. Amorphous granular matter	—	—	Yes.
14. Shell of Difflugia	—	—	Yes.
15. Pleuromonas jaculans	—	—	Yes.
16. Sporangia of fungus	—	—	Yes.
17. Minute colourless oscillatorians attached to a filament	—	—	Yes.

It will be observed that the objects present in Nos. 2 and 3, and not in No. 1, are those numbered from 11 to 17 inclusive. Without laying too much stress upon the fact, it may be noted that the only *fungoid* elements observed were quite absent from No. 1.

F. de Chaumont, M.D., Surgeon-Major,
Conjoint Professor of Hygiene.

Laboratory, A.M.S.,
July 27th, 1875.

APPENDIX No. III.

SPECIAL REPORT ON PUCHMURREE, ITS CLIMATE AND MEDICAL TOPOGRAPHY.

By Surgeon-Major F. P. Staples.

Geographical position.

This new, or rather trial station, is situated in the central provinces on the "Satpoora" range of mountains in latitude 22·25 N., in longitude 78·25 E., about 100 miles due south from Saugor, and 31½ miles from "Bunkerry," a small station on the Great Indian Peninsula Railway between Nursingpore and Hoshungabad.

Means of approach.

It is approached, independently of the bridle-paths in use with the aboriginal tribes and "Bunjarra" carriers, by three roads, two of them being from the line of rail at Bunkerry and Sohagpore, and the other from the country south of the range* on which the station stands.

The first is that now in general use with visitors, traders, and the troops from the Saugor district, and is the easiest way of reaching the station, being only 31½ miles long, while that from Sohagpore, also on the line of rail, is about 42 miles.

The latter, for this reason, is seldom used by the first two classes of travellers but it may be mentioned that it is the route used by the troops from the Nagpore Command.

These two means of approach from the line of rail unite at Singahnamah, "the foot of the hill," where there is a dâk bungalow, but neither deserve the name of road, as they are merely the unbridged cartways from one "Gond" village to another, and, except in the dry seasons, are impracticable except for foot passengers, elephants, or very lightly-laden buffaloes.

From Singahnamah to the station, a new road was made in the latter part of 1871, and it appears to answer every purpose required of it, being broad, dry, and well drained, and having a gradient which easily permits of cart traffic.

The third way of approaching Puchmurree, or that from the south, leads, *viâ* Chindwarra, a small civil station on the southern slope of these hills, but as it is little better than a bridle-path over some very steep ghauts, it may be considered impassable for troops carrying with them ordinary marching equipment. It is much used, however, by sportsmen, pilgrims to the shrine of Mahadeo in these hills, and by the "Bunjarras."†

Historical notice of Puchmurree.

This has been a place of importance for centuries with the Hindoos, who had no sooner established their religious supremacy in this part of India, than they consecrated one of its highest hills to their god Mahadeo, and a journey to the shrine of the deity near here is a binding observance upon the members of that religion in these provinces. The importance of the place, however, was entirely due to these pilgrim gatherings, as the Hindoos made no attempt to colonise the hill, and the name of Puchmurree up to the permanent settlement of Europeans here, continued to represent two very dirty villages inhabited by about 200 semi-savage aborigines.*

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* The Satpoora range to which reference is made has a direction parallel to the 22° of north latitude, and may be said to separate the country of South India, or "Deccan," from Hindoostan proper. It furnishes the watershed of the following rivers: The Soane, Mahanuddi, Godavery, Nerbudda, and the Tapti.

† These are a class of men who own large herds of bullocks, on which they transport, by the bridle-paths of the country, grain and other merchandise. They live almost entirely in the jungles.

The shrine to which the devotees repaired is situated about three miles from the station, in a natural cave of sandstone; but their great annual gathering, which is so vividly described by the author of the "Highlands of Central India,"† is now represented by a few small parties from time to time, and this change is due to the action taken by the Central Provinces Government in 1865, who found it necessary to prevent the spread of cholera which broke out amongst the pilgrims to prohibit their subsequent assemblage in large numbers.

A British force marched into these hills in pursuit of the Rajah of Nagpoor, about 1818, or towards the close of our war with the Mahrattas, and traces of the huts they erected are yet to be seen here, but from that date till 1862, I have been unable to find mention of Puchmurree in Indo-British history.

In that year the station was visited by the distinguished writer I have quoted above, and who may be said to have initiated the settlement by building a house, and the name he gave the latter, "Bison Lodge," is yet a very familiar word with the local community. During the succeeding five or six years the Officers of the Forest Department carried on extensive experiments in horticulture, and in the growth of tea and cinchona, but, owing to the poor quality of the soil, their efforts were attended with unsuccess, and the scheme of utilising the place in this way was abandoned.

Early in 1870, the Central Provinces Government determined to test the capabilities of its climate, and sent here for that purpose 100 prisoners from the jail at Hoshungabad, and, in the autumn of that year, a committee was ordered by the Government of India to report further on its suitableness as a sanitarium for the British troops quartered in the Central Provinces.

The practical result of the Committee's report was the occupation of the plateau in 1871 by 100 men of the 1st Battalion of Her Majesty's 19th Regiment, from Saugor, and a similar number of the 79th Highlanders, from Kamptee, and they have been succeeded in the present year by 150 men of the 44th Regiment, from the latter station.

General description of the station.

The plateau of Puchmurree, on which the station is built, is the third of a similar configuration on the crest of the range, lying between the rocks which overhang the bend of the Denwah river at "Jhilia" and Dhup Gurgh. It is about 4 miles long, by 1½ broad, with a direction from west to east, speaking in general terms, and is beautifully undulating; its slopes are covered with grass, which remains green throughout a great portion of the year, while a liberal clothing of umbrageous trees gives it in many places, and particularly where it has been reasonably cleared, the appearance of English scenery.

It is bounded on the north by a series of rocky peaks, which have a general elevation of 600 or 700 feet above it, and by a huge ravine, called "Jûmbo Dhîp," on the south by the Andeh Kôh ravine and by the peaks known as Mahadeo and "Choura Gurgh," on the west by "Dhup Gurgh,"‡ while the eastern boundary is formed by a series of scarped cliffs which rise up perpendicularly from the "Bungungah" valley.

When viewed from any of the knolls which surround it, the plateau will be observed to resemble somewhat the shape of an oval basin, but, more accurately speaking, it consists of two curvilinear valleys, uniting at their extremities and separated by a centrally elevated ridge, while the outer margin of the basin is formed by another chain of low hills. Through the centre of each valley runs a small stream, which receives the drainage of the low boundary hills by a series of converging valleys, as well as that from the corresponding side of the central range, and the southern or largest of these watercourses is known by the name of the "Bungungah." It is joined by the northern stream at a point near the present site of the Sudder Bazaar, and during the remainder of its course until it leaves the hill at the "Little Waterfalls," forms a boundary line between Puchmurree proper and that portion of ground which is called the "Gate Plateau."

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* I have availed myself largely, in the non-professional part of this report, of the accurate knowledge of these hills to be found in Captain Forsyth's work on the highlands of Central India.

† Gonds and Korkus.

‡ This is the highest mountain in this range, and also in Central India, having an elevation of 4,500 feet above the sea.

At no part of its course within our limits does it deserve the name of river, although it carries a large volume of water during the Monsoon season; but after its descent into the valley of the same name it assumes much greater dimensions, and forms the largest tributary of the Denwah.

The western union of the two valleys above described as forming the Puchmurree basin has received the name of "West-end," from its picturesque beauty, and it certainly affords to the visitor from the plains, if not the grandest, at least one of the most delightful pieces of scenery by which his walks can always be rewarded in these hills.

At the eastern extremity of the central ridge, and within the corresponding junction of the two valleys so often alluded to, on an undulating piece of ground, stands the civil station of Puchmurree, the first house of which was built in 1862 by the late Captain Forsyth, of the Forest Department.

The few remaining houses and huts are of much more recent construction, and the whole scarcely deserves the name of station, and is merely called "civil" here to distinguish it from the military cantonment.

The site of the latter stands about 1,000 yards east of the civil station, and is separated from it by the "Bungungah'" and the valley through which it runs. It is an undulating ridge, and forms the outer boundary of the plateau deep ravines leading from it towards the scarps which overhang the valley of this river.

In addition to the barracks, which are four in number, this site also contains a guard-room on the western front, and these buildings, with the Sudder bazaar, Commissariat store-yard, the Engineer store-yard, and some huts belonging to the D. P. W. employés, situated across the Nullah on a slope of what I have called the "Gate Plateau," constitute the Puchmurree of to-day, the name being originally applied to the Kôrkû villages before alluded to, and both of which have now disappeared from the hill.

Physical geography of the district and station.

The group of hills known by the name of this station, or, as they are more commonly called the Mahadoes, from the religious importance of the hill of that name, constitutes that portion of the "Satpooras" which furnishes the watershed of the Denwah and Sonbudra tributaries of the Nerbudda. Such a statement, of course, is not meant to be strictly accurate, as the former river during the first part of its course receives also the drainage of the north-western slopes of the "Mohtur" range, while the northern slopes of the hills which furnish the upper waters of the "Tapti" are drained by the Sonbudra.

The hills, however, which more immediately surround Puchmurree are bounded, or rather encircled, by the Denwah river, the course of which furnishes a curious example of the system—or rather want of system—in the formative arrangement of these mountains. Rising from beneath "Dhupgurgh," at no great distance from the Nerbudda, which lies in a direction due north, it takes an opposite course as far as the foot of the Mohtur range, between which and the Mahadeos it courses eastward, through the Delakhari Sâl Forest, where it suddenly bends northwards, and having passed through a remarkably narrow defile in the chain, flows along its northern face to its parent stream.

The geological formation of the "Puchmurrees" is what is known as Mahadeo grit, a stratified sandstone, composed for the most part of pure quartz crystals, with an occasional horizontal layer of pebbles intervening, while, projecting from the more consolidated portions of rock, is to be found a curious ferrugineous formation. I am not aware of the exact chemical constitution of this structure—probably it is what is called "iron earth"; but the fantastic shapes which it presents, forms a not incurious object of interest to the visitor to these hills; lime is also found, but very sparingly, in the form of a crystalline carbonate; but whether as a "calcite," or whether originally existing as a cement in the sandstone and derived from it through the agency of water charged with carbonic acid, is a question for the geologist.

The general elevation of the Puchmurree plateau and of the higher plateaux in the range is about 3,500 feet, although many of the peaks which surround it—such as Dhupgurgh, Mahadeo, Chouragurgh, and those peaks which skirt the "Jumbo Dhîp" ravine, attain a much greater altitude—viz., from 4,000 to 4,500 feet.

This great sandstone block of the Mahadeo hills is generally described as the only break in the great trappean overflow which constitutes the remainder of the Satpoora range, as well as the level plains of the "Deccan" and Central India; but perhaps it would be more correct to say that it furnishes an isolated spot of the original crust which escaped the overflow, and which now exists as an upheaval lying upon the igneous formation. I have seen no ravine deep enough to determine at what precise elevation this meeting of the two formations takes place, but it seems reasonable to put it down as 1,000 feet above the sea level, which is about the general elevation of the black trappean plains at the foot of these hills.

In some places, however, within the latter, the basaltic formation is to be found much higher, where water has denuded it of its outer stratified covering, amongst which I may mention a place in the bed of the Bungungah river, near "Congee Ghaut," at an elevation of 1,716 feet, and again, in the bed of the Denwah river, at "Jhilia." at an altitude of 1,570 feet above the sea level; but, at these places, it will be observed that the igneous formation has merely boiled up into the faults or veins of the sandstone.

Soil.

The soil consists of the formation disintegrated, and is the result apparently of what the raintall has removed from the higher hills into the basin. It is light and porous, and lies immediately on the sandstone rock, at depths varying from a few inches, on the convexities of the plateau, to 6 or 8 feet, in the corresponding depressions. It contains scarcely any alluvium, except at the outlets of the valleys which converge towards the two watercourses, and where it has apparently accumulated from the combined action of surface washing and the *débris* of decayed vegetation.

The advantages and disadvantages of the soil as a site for habitations will be discussed further on, but it may be pointed out here that a soil which absorbs water so readily as does the soil of this station, absorbs as readily the refuse of our domestic lives, and that the liability to contamination from such a source should never be lost sight of.

Marshes.

There are no perennial marshes, although there is one on the "Gate Plateau"; but during the Monsoon season, a great part of the two valleys which constitute the Puchmurree basin, as well as the smaller valleys which drain the surrounding ridges, assume a marshy condition. I am particularly anxious to invite attention to this point, as the visitor to the plateau during the dry season can scarcely understand that ground over which he can then gallop is in reality a marsh, and because I have long been of opinion that is to this water-logged condition of the soil that the malarial diseases so prevalent here are due, and more especially because the condition appears to admit of easy remedy by drainage. In the valleys which surround the hills and in the great ravines which carry off its drainage, there are also extensive marshes, and it is in these during the hot weather, when grass is not to be found elsewhere that the sportsman may expect to meet with the noble "gaur," or Indian bison.*

Vegetation.

The vegetation, with the exception of the coarse grass to be found near the streams and wet valleys, consists of a fine kind of spear grass, which is eagerly consumed by horses and black cattle. A great variety of trees are to be met with, and many of them are peculiar to the Central Provinces, and to those parts of India having a similar latitude, the most common being the "Hurra" (*Terminalia Chebula*), the "Mowah" (*Bassia Latifolia*), the "Jamin" (*Eugenia Jambolana*), the "Aonla" (*Emblica officinalis*), the "Sâl" (*Shorea robusta*), and the "Bejazal" (*Pterocarpus marsupium*), while a fair sprinkling of the dwarf date serves to remind the European that the scene of all this beauty is yet within the tropics. Specimens of the following trees are also to be found, but in sparing numbers:—

"Saj" (*Penetaptera tomentosa*), a useful wood, but hard.
"Beherah" (*Panetaptera bellerica*).
"Siris" (*Acacia sirrissa*).
"Tendoo" (*Diospyros ebenum*), the ebony tree

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* Gaveus Gaurus.

"Salee" (*Boswellia thurifera*), frankincense tree.
"Gooloo" *Sterculia urens*), furnishes gum tragacanth.
"Dhak" (*Butea frondosa*), furnishes one kind of gum kino.
"Bher" (*Zizyphus jujuba*), the jujube tree.
"Mango" (*Mangifera indica*), the wild kind.
"Semul" (*Bombax malabricum*), red cotton tree.
"Imlee" (*Tamarindus indica*), tamarind tree.
"Toon" (*Cedrela toona*), a useful wood.
"Bael" (*Ægle marmelos*), very few specimens.
"Dowrah" (*Conocarpus latifolia*), lance wood.
"Unjun" (*Hardwickia binata*), a useful wood.
"Cheroonjee" (*Buchanania latifolia*), has a pleasant fruit.
"Peepul" (*Ficus uligiosa*).
"Banyan" (*Ficus indica*).
"Goolar" (*Ficus glomerata*). The figs of this tree are largely eaten by the natives.
"Kuchnar" (*Bauhinia variegata*), has beautiful lilac flowers.
"Mahwal" (*Bauhinia scandens*), the giant creeper.

Ferns in great variety are also to be found, and fern gathering on the hill sides and at the waterfalls* forms one of the attractions of the annual visitors. The most common kinds are the "Rajah" fern, a variety of the maiden hair, the creeping fern, a species of *Asplinium* the "oak leaf," two or three kinds of *Scolopendrium*, several varieties of parsley fern, a specimen resembling the English *Botrichium*, and the climbing fern; while, in the ravines which bound the plateau, tree ferns of three varieties, as well as the royal or flowering fern (*Osmunda regalis*) are to be seen in great abundance.

Natural productions.

The sandstone rock, when quarried and exposed to the air for some time, is an admirable building stone, and the "Sâl" tree of the ravines and lower slopes, furnishes timber large enough for rafters, door-posts, and minor carpentary work. A valuable dye is procured from the fruit of the "Hurra" tree, which is collected twice yearly, while the "Mowah" yields the ardent spirit of the country, as well as a rich oil.

Several kinds of gum can be procured from the other trees—such as olibanum, from the Boswellia; kino, from the Bejazal (*Pterocarpus*); but the natives, although well aware of this fact and of the medicinal properties of the specimens, are too lazy to develope their commercial value.

No grain of any kind was grown on the plateau by the aborigines; but on many of the hill sides are to be found "Dhya" clearings where they raise crops of Kôdon and Kûtki (kinds of millet) by this destructive process of cultition.† Potatoes have been grown by the Commissariat Agent, and, although they failed utterly in 1871, owing to want of manure, drainage, and the excessive rainfall, they promise to yield a middling crop this year. (Since this part of the report was written the crop has been gathered, and the out-turn of edible potatoes is about thirteen-fold.)

Natural history.

The plateau is singularly wanting in natural historical specimens, and nothing, perhaps, strikes one so much on a first visit to Puchmurree as this singular absence of animal life.

In the ravines, however, and valleys which bound the hill, although in sparing numbers, are to be found most of the specimens of wild animals for which the Central Provinces are remarkable, and the following is a list of those I have met with in my jungle expeditions:—

"Gaur" (*Gaveus Gaurus*), the Indian bison.
"Tiger" (*Felis Tigris*), has been known to visit the plateau.
"Leopard" (*Felis Leopardus*), they sometimes live near Puchmurree.

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* The drainage water as it leaves the hill forms three magnificent waterfalls, called respectfully the "Big," "Little," and "Bee." The first is about 600 feet in height, the second a double fall of about 50 and 100, and the third, which is a remarkably picturesque one, is about 100 feet in height.

† The process in question consists in cutting down the trees on a piece of forest, burning them and sowing grain in the ashes.

"Wild Cat" (*Felis Catus ferus*), a constant visitor in the cold weather.
"Wild Dog" (*Cuon rutilans*).
"Marten" (*Mustela foina*).
"Indian fox" (*Vulpes Bengalensis.*)
"Common Indian squirrel" (*Sciurus palmatus*).
"Sambar" (*Rusa Aristotelis*), the Indian red deer.
"Great Indian red squirrel" (*Sciurus maximus*).
"Common hare" (*Lepus timidus*).
"Chickara" (*Gazella Bennettii*), the Indian gazelle.
"Nilghi" (*Portax Pictus*).
"Bher" (*Tetraceros Quadri cornis*), four-horned antelope, or jungle sheep.
"Barking deer" (*Cerrulus aureus*).
"Indian sloth bear" (*Ursus labiatus*), visits the plateau during the flowering of the Mowah tree.
"Wild hog" (*Sus Scrofa*).

I have also met with most of the specimens of Indian birds and reptiles here, and some of the visitors to the hill have made beautiful collections of beetles and butterflies; but I regret that space prevents my further alluding to this part of the subject.

Climate and meteorological observations.

The climate may be described generally as temperate, and forms a favourable contrast at all seasons of the year with that of the adjoining stations in the plains; but at no time is the comparison so agreeable as during the months which constitute the hot weather. At this time of the year, when everything is scorched up in the plains, and animal life supported with difficulty, and the lives of Europeans probably by artificial means, a comparative freedom from the exhaustion, sleeplessness, and the many disagreeable attendants on a tropical residence may be found in Puchmurree. The word comparative is used here advisedly to prevent people expecting too much, as some of the visitors during the past season, in their disappointment with the heat here, compared the place unfavourably with the Himalayan Sanataria, apparently forgetting that the altitude here is only 3,500 feet, and that at the same height in the former range it is usual to experience an unpleasantly-heated temperature.

The hot season lasts from about the middle of April till the insetting of the rains, but even during this period the mornings and evenings are enjoyable, and the nights are seldom too hot to interfere with refreshing sleep. During the middle of the day, however, or from about 11 A.M. till 4 P.M., a heated westerly wind blows across the plateau, rendering artificial means of reducing the temperature a pleasant indulgence, if not a necessity; and, although no such luxury has been used for the past two years by the "pioneers" of Puchmurree, it was the opinion of the residents experienced in Indian climates, that "Khus Khus" tatties would have added much to their enjoyment of the climate during the summer months.

Punkahs are not necessary for people in health, but I have considered it advisable to recommend their employment for the sick in hospital for the hot weather, and, doubtless, ladies and people in delicate health will also require them during this season, particularly at night.

The rainy season, as in the adjoining plains, lasts from about the 10th of June till the 25th of September, and the average fall for the seasons of 1871 and 1872 has been 91·48 inches, and this—although, perhaps, a little too high—may, I think, be taken as an approximately fair average for the station. The fall for 1871—viz, 106·61 inches, is, no doubt, above the average, as that year was exceptionally wet throughout India generally, but I believe that the amount collected this season—76·35 inches, is equally below it, as the register only marked 4·75 inches for June, and 13·32 for September, neither of which figures appear to me to represent a fair average for those months.

During the wet season of 1871 the weather was most disagreeable, and the rain was almost continuous, and not unfrequently accompanied by a high wind. Except for two very short breaks, out-door exercise was next to an impossibility, and the gloom consequent upon confinement to their barracks, and the constant rain and mist, had a perceptible effect upon the spirits of the men, and both they and their officers were often in the habit of expressing their dislike to the place.

The reverse of all this unpleasantness has been characteristic of the rainy season of 1872. There have been only 75 days on which it rained against 94* for last year; and as it very frequently rained only at night, and out-door exercise was obtainable, except on some half-dozen days, it would be almost impossible to experience a more enjoyable Monsoon season. The temperature felt like that of wet summer weather in Great Britain, while the clothing worn at home was in use by the troops, and fires in the barracks and private houses were enjoyable.

In the month of October the weather becomes again warm; but, although a high temperature obtains, it is only for a few hours during the day, and the remainder of the 24 hours is genial and refreshing, and, as far as I am personally concerned, I look upon this month at Puchmurree as a near approach to climatic perfection.

Towards the latter part of it, the nights begin to get very cold, and with November commences the cold weather. This season, in Central India, is very different to the same time of the year in the north-west provinces and Punjaub, and approaches more nearly to the cold weather of the Bombay Presidency. The temperature during the daytime is always high, while that of the nights is very cold, and to this extreme diurnal range, which I have observed here as high as 54° Fahr., are superadded an excessive evaporation† and a very dry wind.

The limited number of residents, "9 adults and 3 children" during these months last year did not enable me to get valuable data as to the effects of these conditions upon the European constitution, but nevertheless I am of opinion that they will be very liable to produce fevers and congestive and inflammatory diseases of the viscera in the incautious soldier and the poorly-clad native of the plains. As observed, sufficient experience was not gained to attach any great importance to the statement, but it is only right to place on record that, out of the 12 who remained here during the winter, 10 had fever, and 2 had dysentery, and that the natives suffered and died in considerable numbers from these diseases.

The following Table will shew the prominent characteristics of the climate, of which a brief summary is here offered:—

(1.) An average temperature of 10·2° Fahr. below that of the plains.
(2.) Equable barometric observations.
(3.) A comparatively high daily temperature; but this, it is to be observed, only lasts for a few hours in the middle of the day.
(4.) A high diurnal range, except in the Monsoon season.
(5.) An approximate yearly temperature of 73·4° Fahr. which almost brings the climate within the temperate classification.
(6.) A very dry atmosphere, except in the Monsoon season, as shewn by the difference of the wet and dry bulb thermometers.
(7.) An atmosphere almost saturated in the Monsoon season.
(8.) A high rainfall.

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* These numbers have reference only to the days on which rain fell during the monsoon, and do not include days on which there have been slight showers at other seasons of the year.

† My experience of this part of India does not enable me to say whether this excessive evaporation is characteristic of the entire province, but so great is it here in the cold weather (December and January) that dew is never observed upon the the ground.

Return showing a comparison between the highest daily temperature at Puchmurree and Hoshungabad, a station in the adjacent plains, for 1872* :—

	January.	February.	March.	April.	May.	June.	July.	August.	September.	Remarks.
Hoshungabad ..	81	89	99	103	108	104	88	84	88	This gives an average for these months of 10·2° in favour of Puchmurree.
Puchmurree ..	74·8	79	90	92·7	96·6	93·1	73·5	72·2	79·6	

* I am indebted for the information from which the figures for Hoshungabad was taken to Dr. Cullen, Civil Surgeon of that station.

Meteorological Observations taken at Puchmurree during the year 1871.

Months.	Reading of Barometer.				Temperature of air.							Dry and wet bulb.		Mean deduced dew point.	Mean degree of humidity.	Rain.		Wind.	Remarks.
	Mean for month.	Highest in month.	Lowest in month.	Range.	Highest in month.	Lowest in month.	Range in month.	Mean of all highest.	Mean of all lowest.	Mean daily range.	Approximate mean for month.	Mean of dry bulb.	Mean of wet bulb.			Number of days it fell.	Amount collected.	General directions.	
	in.	in.	in.	in.	°	°	°	°	°	°	°	°	°	°			in.		
March	26·38	26·49	26·26	·23	97	43	54	87·7	55·4	32·3	71·5	81·3	54·6	36·7	*	..	..	S. W.	* Owing to the extreme dryness of the atmosphere for these months, the degree of humidity cannot be calculated from Mr. Glashier's Tables.
April	26·28	26·47	26·18	·29	99	63	36	94·1	70·7	23·4	82·4	86·7	58·9	40·9	*	..	..	W.	
May	26·24	26·44	26·12	·32	97	62	35	92·4	72·4	20·0	82·4	85·0	66·8	54·8	35·6	6	·98	W.	
June	26·10	26·26	25·94	·32	98	51	47	80·1	67·0	13·1	73·5	76·4	69·4	63·4	66·6	21	24·40	W.	
July	26·12	26·24	25·97	·27	83	61	22	74·8	66·0	8·8	70·4	70·9	68·3	66·2	85·3	24	38·82	S. W.	
August ..	26·12	26·29	26·03	·26	81	65	16	74·2	66·6	7·6	70·4	69·5	67·8	66·4	90·3	21	13·93	S. W.	
September ..	26·22	26·48	26·05	·33	85	60	25	77·6	66·2	11·4	71·9	72·6	69·1	67·3	81·5	22	27·71	N. W.	
October ..	26·50	26·62	26·38	·24	95	51	44	88·8	58·1	30·7	73·4	77·9	61·4	48·2	57·4	..	..	N. W.	
November ..	26·56	26·69	26·42	·27	94	50	44	86·2	55·2	31·0	71·2	75·3	60·2	49·3	40·0	..	..	S. W.	
December ..	26·57	26·64	26·34	·30	90	40	50	83·3	51·0	32·3	67·1	70·2	57·0	46·8	43·6	3	·77	S. W.	
Mean ..	26·30	26·46	26·18	·28	91·9	54·6	38·3	84·1	62·8	21·0	73·4	76·5	63·3	54·3	50·0	97	106·61	..	Total Rainfall.

Meteorological Observations taken at Puchmurree during the year 1872.

Months.	Reading of barometer.				Temperature of air.							Dry and wet bulb.		Mean deduced dew point.	Mean degree of humidity.	Rain.		Wind.	Remarks.
	Mean for month.	Highest in month.	Lowest in month.	Range.	Highest in month.	Lowest in month.	Range in month.	Mean of all highest.	Mean of all lowest.	Mean daily range.	Approximate mean for month.	Mean of dry bulb.	Mean of wet bulb.			Number of days it fell.	Amount collected.	General directions.	
	in.	in.	in.	in.	°	°	°	°	°	°	°	°	°	°			in.		
January ..	26 ·51	26 ·62	26 ·42	·20	84	36	48	74 ·8	49 ·7	25 ·1	62 ·2	68 ·0	53 ·1	41 ·3	37 ·3	..	..	S. W.	* Owing to the extreme dryness of the atmosphere for these months, the degree of humidity cannot be calculated from Mr. Glashier's Tables.
February ..	26·53	26 ·60	26 ·41	·25	87	35	52	79 ·0	50 ·7	28 ·3	64 ·8	72 ·7	53 ·2	38 ·5	29	1	0 ·11	N. W.	
March	26 ·53	26 ·66	26 ·45	·21	101	53	48	90 ·0	63 ·9	26 ·1	76 ·9	83 ·6	57 ·5	41 ·7	*	1	0·50	N. W.	
April	26 ·45	26 ·58	26 ·35	·23	98	59	39	92 ·7	68 ·9	23 ·8	80 ·8	86 ·0	61 ·2	45 ·1	*	1	0·5	S. W.	
May	26 ·39	26 ·58	26 ·30	·28	101	67	34	26 ·6	75 ·8	20 ·8	86 ·2	90 ·1	64 ·5	48 ·4	*	..	..	N. W.	
June	26 ·22	26 ·42	26 ·2	·40	105	63	42	93 ·1	74 ·1	19 ·0	83 ·6	83 ·8	72 ·0	64 ·3	51·6	14	4 ·75	N. W.	
July	26 ·16	26 ·32	26 ·5	·27	85	62	23	73 ·5	64 ·2	9 ·3	68 ·8	67 ·6	65 ·1	63 ·1	85	26	32 ·17	N. W.	
August ..	26 ·19	26 ·47	26 ·7	·40	78	65	13	72 ·2	66 ·4	5 ·8	69 ·3	70 ·4	68 ·9	67 ·7	91 ·4	24	25 ·33	S. W.	
September ..	26·35	26 ·49	26 ·10	·39	88	64	24	79 ·6	66 ·0	13 ·6	72 ·8	74 ·0	69 ·3	65 ·8	75 ·5	11	12 ·52	S. W.	
October ..	26 ·49	26 ·64	26 ·34	·30	95	44	51	82 ·1	55 ·5	26 ·6	68 ·8	73 ·4	60 ·5	51	45 ·7	1	0 ·92	S. E.	
Mean ..	26 ·38	26 ·54	26 ·25	·29	92 ·2	54 ·8	37 ·4	83 ·3	63 ·5	19 ·8	73 ·4	76 ·9	62 ·5	52 ·6	59 ·3	79	76 ·35	..	Total Rainfall.

The water supply.

The station possesses an abundant supply of water at all seasons of the year, and the analysis of it, published in the report by the chemical examiner to Government for 1871, a copy of which will be found on page, 017 shews it to be a water of unusual purity. The explanation of its chemical excellence is to be found in the nature of the soil through which it percolates and which, as before stated, is almost pure silica, and again, in the soft sandstone which everywhere underlies the soil, and which contains the permanent supply. A cleaner filter and receptacle it would be difficult to find. It is essentially a soft water, and rather tasteless to drink, and these qualities are due, no doubt, to its purity, or, in other words, to the absence of carbonic acid and alkaline salts from its composition, and to this absence possibly also is due the non-prevalence of diarrhœa on the hill. The supply for the troops is procured from two wells situated near the Nullah, about 500 yards from barracks ; both are protected by a wall and covered by a sheeting of corrugated iron, but the water is raised by the old and objectionable method of the "dhole," or leathern bag. Besides these wells, there are three others in the station, one for the Sudder bazaar, which is also covered in and protected by a wall ; one in the civil lines ; and one near the lines occupied by the prisoners from the Hoshungabad jail in 1870 ; both the latter are uncovered.

As stated above, the supply is abundant, and although fears were expressed upon the subject by Engineer Officers in 1871, when discussing the thorough drainage of the plateau, the experience of the officer in charge of the works here* during last hot season, gave a satisfactory settlement of the question. In May he commenced to deepen the wells in which the water had then only sunk to the distance of about 14 feet from the surface, and although his workmen were at the pumps day and nigh, there was great difficulty in exhausting the contained water, so rapidly was it poured in from the sandstone which forms the sides of the wells.

The distance from the surface at which water is found in the soil varies from 0 in the monsoon season, to from 12 to 16 feet in the hot weather, but of course, this remark refers only to the concavities on the plateau, as a different experience of the height of the surface level of the water would be gained if wells were sunk on the convexities ; but even on some of these, where cuttings have been made, a practical demonstration of the proximity of water to the surface of the soil may be observed, even upon considerably raised portions of the plateau.

The following is offered as an explanation of this saturated condition of the soil of the station during the monsoon :—In the early part of it, the rain water, although for the most part carried off by the surface outlets, sinks rapidly into all the sandy and gravelly portions of the hill, and into the upper stratum of the sandstone which has been emptied during the previous dry season. This sandstone, or subsoil as it may be called, becomes rapidly refilled, and about the middle of the monsoon is filled to saturation, and when this happens the water in the soil rises rapidly and soon reaches the level of the surface in the undrained portions of Puchmurree. It continues at this height until the rains are over, when it sinks slowly till the following season.

A proof of the manner in which the sandstone causes the water-logged condition of the soil may be found in any of the cuttings which have been made here, and the best example I am acquainted with is to be seen at the cantonment bridge, where, in a vertical section, water issues rapidly from between the sandstone and the soil which overlays it, at a height of 2½ feet from the surface.

In concluding these remarks upon the water, which I may repeat is very pure, and from the use of which no disease is likely to arise, I regret I have not been able to bring a more scientific knowledge to bear upon the relation of its surface level to the soil and subsoil ; but as I am firmly impressed with the belief that it is in this difficulty with which the subsoil empties itself of water is to be found one of the greatest causes of the constant presence of malaria here ; I hope I have said enough to direct attention to it, with a view to its remedy by drainage.

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* Lieut. A. G. Clayton, R.E.

RETURN of Portable Waters of Puchmurree, by Dr. Whitwell, from the 15th to 23rd March 1871.

Date of Analysis.	Position of Water Source and by whom used.	Physical properties of water after passing through filter paper.	Re-action.	Degrees of total hardness.	Degrees of permanent hardness.	Degrees of removeable hardness.	Grains of oxygen required for oxidation of readily oxidisable organic matter of 1,000 grains of water.	Ammonia.	Phosphoric acid.	Nitrous acid.	Grains of nitric acid in 70,000 of the water.	Total solids in 70,000 grains of filtered water.	Volatile matter.	Mineral matters.	Earthy salts, silica, oxide of iron, insoluble in water.	Lime calculated as carbonate.	Silica.	Soluble salts.	Chloride of sodium.	Sulphate of soda.	Carbonate of soda.	Remarks.
March 15th	River above the native village. Used by the villagers and camp followers for drinking and other purposes	Good	Alkaline	2·18	1·45	·73	·00091	Trace	None	Trace	...	8·4	2·1	6·3	3·05	2·01	Trace	2·8	·63	Trace	·951	
,, 19th	"Old Jail" well, situated about 40 yards east of the nullahand, opposite the native village. Used by the natives for all purposes	Good	Alkaline	3·07	3·05	·02	·00068	None	None	None	...	10·5	2·8	7·7	5·25	3·57	Trace	2·45	·504	Trace	1·445	This well has neither efficient platform nor drain, and in consequence much spilled water and slush accumulate about it.
,, 23rd	Well in the public garden. Used by the European detachment and prisoners for drinking	Good	Alkaline	1·36	1	·36	·00067	None	None	None	...	·7	·7	6·3	3·05	3·24	Trace	2·08	·84	Trace	1·522	This well has neither platform nor drain; it is surrounded by garden shrubs. Much slush accumulates about its mouth.

Accommodation.

The means of accommodation here have been different from that of other stations during the season of 1871, and this fact deserves attention in estimating the effects of the climate upon the constitution of Europeans. During that season the troops occupying the depôt were under canvas from their arrival in February and March,* until about three weeks of the monsoon weather had passed, and they were housed for the remainder of their stay in unfinished barracks.

This exposure during the hot season, and inadequate shelter in the rains, were alleged to have been accountable for the undue prevalence of intermittent fever amongst the men of the detachments of the 1st Battalion of the 19th Regiment and the 79th Highlanders last year, and I subscribed to this opinion upon my arrival, in the absence of evidence to arrive at a different conclusion, and partly because I was aware of how "fever-poisoned" the men of both regiments† were from their previous service in the Peshawur valley.

There can be no doubt that vicissitudes of climate such as they were exposed to were quite competent to cause frequent attacks of fever in men so poisoned by malaria as they were; but the experience of the present season, when the men of the 44th Detachment, fresh from England and well housed in the new barracks have suffered still more from this disease would seem to nullify the conclusion of last year, and to prove that there is another agent here active in the production of intermittent fever.

Barracks.

Four barracks were commenced in 1871, completed in the present season, and since then occupied by a detachment of the 44th Regiment. Each barrack is capable of containing 48 men in four rooms, with a small room at each end for non-commissioned officers, while across the centre and at right angles to the line of the building, is a large room which serves as a dining and recreation hall. They are built of brick and mortar, roofed with a single sheeting of corrugated iron, with a verandah round the dormitory rooms, 9 feet 6 inches wide, and which is also roofed with the same material. They are warmed by means of open fire-places, and each room is ventilated by one door and three windows on each side, and also by the space between the verandah-roof and roof proper,—being merely connected by a perforated zinc plating.

The plan‡—of which drawings are enclosed—of the barracks appears to be an admirable one, and the soldier is very comfortably housed in them; but there are a few points connected with them which deserve attention,—namely,

A. Their accommodative capacity.
B. The protection they afford in the hot season.
C. Their ventilation.
D. Their site.

In the original plan, 77 superficial and 964 cubic feet were allowed for each occupant, in accordance with the standard amount for barracks in the Himalayan range‡; but the difference of altitude would appear to deserve consideration, and although the present space is probably sufficient for the cold season and rains, it does not appear to be so for the hot weather, when the thermometer often registers 98 and 99 in the barrack-room, and in which, after the westerly wind lulls in the evening the atmosphere becomes very close.

Regarding the second point, it may be mentioned that a single sheeting of corrugated iron does not appear to be a sufficient protection from a tropical sun, and that such a roof is also objectionable from its radiating downwards absorbed caloric was proved by the experience of last hot season. In April, at the recommendation of the writer, a ceiling—white cloth, lime-washed—was erected in the barrack which is used as a hospital, and a series of experiments carried on by order of His Excellency the Commander-in-Chief, showed that the temperature at mid-day in the wards thus slightly protected was two degrees of Fahrenheit less than in the other barracks.

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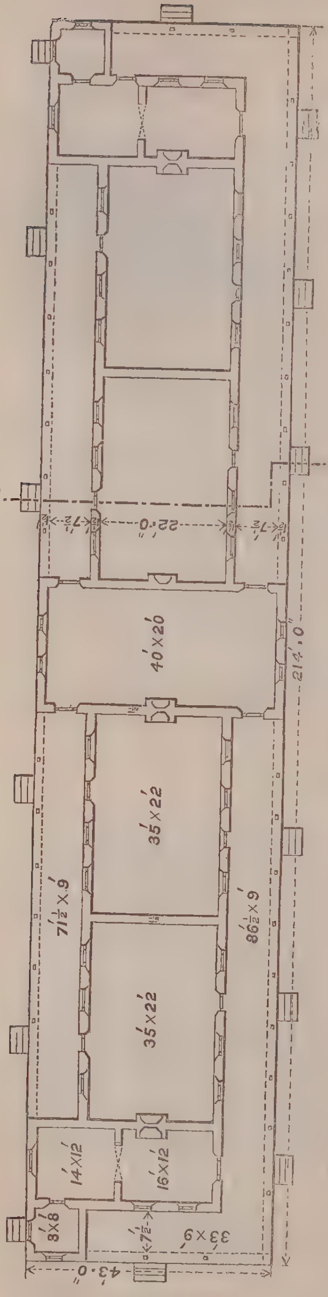
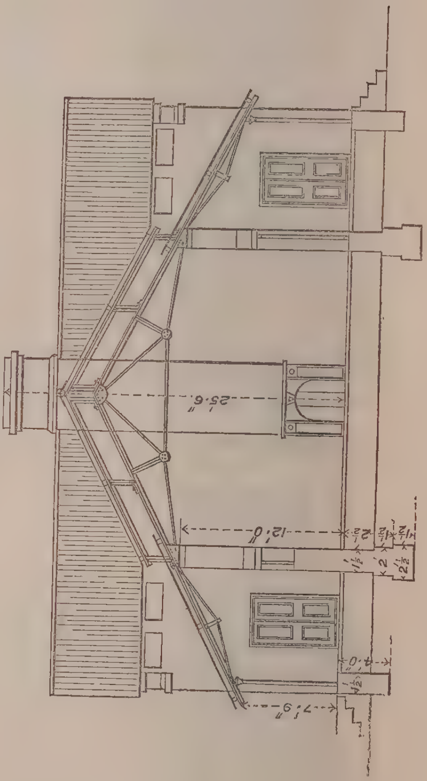
* The detachment 1st Battalion 19th Regiment reached Puchmurree on the 21st of February, that of the 79th Highlanders on the 7th of March, 1871.

† The writer served as an Assistant Surgeon in the 1st Battalion 19th Regiment in Peshawur.

‡ 7,000 feet may be taken as a general average for the stations in the Himalayas, while the altitude here, as before stated, is only 3,500 feet.



GROUND PLAN.



CROSS SECTION A. B.

This subject has been officially represented, and is alluded to in this report merely with a view towards hastening the erection of a suitable ceiling, or the completion of the inner roof.

Ventilation.

The ventilation—the third point above mentioned—has scarcely been a success, as the non-erection of the inner roof rendered it necessary to block up the perforated zinc on the weather side to keep the rain out, and thus one-half of the outlet ventilation was lost. The windows also, which are three in number in each room, 3 feet 8½ inches by 2 feet 4¼ inches, although suited to a strictly temperate climate, and probably to this climate during the cold weather and rains, scarcely appear large enough to ensure a thorough ventilation of the sleeping-rooms during the hot season.

Barrack site

The barracks are placed in échelon, from north to south, on what is known locally as the "barrack ridge," with the front facing towards the west. The site has some advantages, such as being on open ground and tolerably close to water ; but the experience of this season would nevertheless seem to show that it is open to objections, and these remarks more especially refer to the position of Nos. 4 and 3 barracks. These buildings are situated very close to uncleared jungle and ravines ; and a funnel-shaped ravine leads from the Bungungah valley, where there is swampy ground, to within 50 yards of No. 3 barrack. To prove the validity of what may appear to be a theoretical objection is, of course, not easy, but I would beg to invite attention to a comparison of the following return :—

Return showing the Admissions into Hospital from each Barrack from Paroxysmal Fevers, from the 17th of March to the 31st of October.

No. of Barrack.	Average Strength in Barrack.	Admissions into Hospital from Fever from each Barrack.	Remarks.
1	47·05	29	
2	38·75	44	One room in this Barrack is occupied as a canteen.
3	50·31	73	
4	14·42	9	Three rooms in this building are occupied as a hospital.
Total ..	150·53	155	

With regard to the above Return, the extreme excess of admissions from fever from No. 3 barrack would appear to be conclusive evidence against the healthiness of its situation ; but, on the other hand, it must be mentioned, that the occupants are younger soldiers than the men of No. 1 barracks, with which it compares so unfavourably, by an average of 1 year and 1 month, and that they were selected from the regiment as weakly and likely to derive benefit from the change to this climate. I can scarcely believe, however, that these two conditions are to be held accountable for the great difference in the admissions into hospital, and I think the subject might be usefully investigated during another season.

There is one other point in connection with the site which may be mentioned—viz., whether it is sufficiently raised above the general level of the plateau? I am inclined to a contrary opinion, as it appears desirable in a station where malaria is prevalent to seek the highest ground possible for habitations, and for the same reason I would beg to recommend the ridges which form the southern boundary of the Puchmurree basin as sites for any future barracks that may be erected here.

Subsidiary barrack buildings.

No building of this kind of a permanent nature has yet been sanctioned—shelter only being aimed at in the absence of decision as regards the future of the station. The sheds in use as wash-houses and cook-houses have answered their purpose; but the latrines have been highly objectionable, consisting, until lately, of a stick supported on uprights, and without any protection for the pans, and permitting freely of the contamination of the soil by the liquid excreta.

The liability of this condition to prove a future source of disease, more especially in a sandy soil like that of this station, was officially brought to notice, and the rears are now being improved. Since this was written the rears have been put into a good sanitary condition.

Disposal of sewage.

During 1871, the dry-earth system of conservancy, with pit burial, was in use, and during the present year the trench system of conservancy was introduced; but a satisfactory disposal of the sewage has not been effected. This has arisen from insufficient establishment, and from the sweepers being obliged to carry the excreta to the trenches, and who, in the natural wish to lighten their load, have been in the habit of disposing of the liquid matter and pan washings by pouring them on the ground near the rears. Representations of the serious results likely to arise from such a practice, and from a similar one on the part of the cooks with their refuse washings, were made to the Officer Commanding, and the employment of a filth cart recommended, but the recommendation, although forwarded by him, has been productive of no result, and the sewage is still carried to the trenches by the sweepers.

Clothing.

In 1871, the troops wore white in the hot weather and serge during the monsoon, with the English tunic for the night guards in the latter season; but during the present year, the 44th Detachment have worn their English clothing all through the rains.* In the warm weather which succeeds the monsoon white becomes again suitable for day wear, but it is very necessary at this season that the men exposed on night duty should be dressed in English clothing, owing to the difference between the day and night temperature, and also that serge should be worn in the mornings and evenings.

For the months constituting the cold weather, serge clothing is suitable for day wear, with the English tunic for night guards; and at this season of the year, and, in fact, at all seasons, flannel should be worn as an under-clothing, on account of the sudden changes of temperature which are characteristic of the climate, and also on account of the diurnal range, which averaged, in 1871, from 16° Fahrenheit in August to 54° Fahrenheit in March.

Recreation.

There is fair ground for cricket on many parts of the plateau, and during the season the men of the 44th Detachment have taken every opportunity of the facilities afforded for playing the game, but the great majority of them prefer "long bowls," and I may say that this game has occupied the greater part of their time since they came here. It seems to be an admirable way of taking exercise, and appears to be a game deserving of every encouragement—one of its greatest advantages being that its rules are so simple as to preclude the possibility of disputing on the part of the players. The detachment has a library and reading-rooms, with a good supply of books and newspapers, and situated in a large and well-ventilated room,† and the other half of the same building they have converted into a theatre, and fortnightly performances at the "Theatre Royal, Puchmurree," have done much to amuse the men and residents of the station.

The temperate nature of the climate permits of the men spending a good deal of the day in the open air without danger, and fishing, shooting, and catching butterflies have been amongst their relaxations; but in the monsoon season, when a great part of the day must be unavoidably spent in barracks, the want of indoor amusement is much felt by all, and particularly by those soldiers whose education is limited. To meet this very necessary requirement for the soldiers stationed here, a covered-in fives court or gymnasium and a skittle-alley or two might be sanctioned, and the men might also be encouraged to cultivate gardens (near barracks), with beneficial advantage to themselves.

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* This arose through their not being in possession of serge.

† This building was erected for a guard-room, but as it is much too large for the requirements of a small detachment it has been used as above described.

Diet of the troops.

The rations generally have been of very good quality, and the beef ration has been the best I have ever seen issued to troops in this country—a circumstance easily accounted for by the abundance of grass which grows in the valleys of the plateau, and which retain, in these places, its rich and succulent qualities throughout the greater part of the year.

The following has been the composition of the diet during the present season :—

Bread, 1 lb.
Meat, 1 lb. (beef, 6 days ; mutton, 1 day.)
Rice, 4 ozs.
Salt, $\frac{2}{3}$ oz.
Sugar, $2\frac{1}{2}$ ozs.

$$\left.\begin{array}{l}\text{Tea, }\tfrac{5}{7}\text{ oz.}\left\{\begin{array}{l}\tfrac{1}{3}\text{rd China}\\ \tfrac{2}{3}\text{rds Indian}\end{array}\right\}\text{ mixed}\\ \text{Coffee, }1\tfrac{3}{7}\text{ oz.}\end{array}\right\}\text{ on alternate days.}$$

Potatoes, 12 ozs.
Mixed vegetables, 4 ozs.

The mixed vegetable ration consisted of 4 ozs. of onions from the 17th of March (date of arrival of detachment of 44th in 1872) till the 13th of May 2 ozs. of onions and 2 ozs. of pumpkin from the 14th of May to 10th of August, and again 4 ozs. of onions daily from the 11th of August to present date.

In 1871 the ration was composed as above from the 29th of May until the departure of detachment of 79th Highlanders for England in September, but during the early part of their stay at the depôt the vegetable ration consisted of 1 lb. of potatoes only, and to this want of variety in the vegetable ration, the medical officer* then in charge attributed the prevalence of scurvy, as well as scorbutic dysentery, which was observed in the men of the 79th Highlanders during that season.†

This occurred previous to my arrival in July 1871, but during the subsequent two months I was in charge of that detachment a mild form of scurvy of the gums was to be observed amongst the men, and although not likely to lead to serious consequences, it was sufficient to warrant the continuance of a ration of lime juice which had been recommended by my predecessor.

During the present season, except in six cases, who were treated for this condition soon after their arrival, the detachment of the 44th Regiment enjoyed an immunity from scurvy till October. In the week ending Saturday, 12th of that month, a few cases were observed amongst the fresh sick, and at the health inspection of that date 55 men were picked out who showed symptoms of the disease. In the great majority of these, it was very slight, but, bearing in mind the experience of last year, it was considered advisable to recommend the daily issue of a ration of lime juice as a preventive measure.

PART II.

Medical history of 1871.

The detachment 79th Highlanders‡ to which the remarks for 1871 have reference, arrived at Puchmurree from Kamptee, on the 7th of March in that year, 100 strong, and these 100 men were composed of 80 duty soldiers and 20 men who, although not actually suffering from disease, were selected from the regiment by the surgeon as delicate, and likely to derive benefit from a change to this climate. Regarding these 20, it must be mentioned that no return accompanied them pointing out the specific diseases from which they had previously suffered, and that, on this account, it is impossible to state how far any separate disease was benefited or the reverse by the climate of Puchmurree but I believe I am correct in saying that these men were not the ordinary convalescents of the regiment, as the latter were sent to Wellington, in the Neilgheries.

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* Staff Assistant Surgeon T. Murtagh.

† When this matter was enquired into it was found that the men had tired of the potatoes, and were eating bread with their meat.

‡ A detachment similar in strength of the 1st Battalion 19th Regiment, from Saugor, also arrived at Puchmurree in February of that year, but as they were recalled to Jubbulpore in June, owing to want of accommodation, and as their records accompanied them no medical history of that detachment can be furnished.

In considering the percentage of sick, deaths, &c.,* in the 100 men, however, a certain allowance should be made for these 20 delicate soldiers who composed a fifth part of the entire number.

The first illness of any consequence took place in the detachment in April, when 8 cases of intermittent fever and 17 of venereal disease were admitted into hospital. In May there was a decrease in the number of admissions from these two diseases, but 2 cases of diarrhœa and 2 of dysentery were admitted, and of the latter 1 proved fatal. In June, paroxysmal fevers were prevalent, 14 being admitted, and the same remark applies to bowel complaints, 3 men being admitted with diarrhœa and 3 with dysentery, one of the latter proving fatal, and during the month scurvy of the gums was observed amongst the men generally.

In July the admissions were below the average of the previous months, the decrease being most marked in bowel complaints and in venereal diseases, while, in August there was an increase in paroxysmal fevers and in venereal, and so liable were some of the men to ague in this month that I considered it necessary to have quinine issued as a prophylactic to men lately discharged hospital, and to a class of men who may be described as habitual fever subjects.

In September the detachment left for England, and the only cases of importance observed in that month were one of remittent fever, accompanied by bowel complaint; one case of abscess of the liver, and which terminated favourably; and a case of measles of a malignant form, which proved fatal.

During the six weeks succeeding the monsoon, the few Europeans who remained on the hill enjoyed good health, but in the cold season both Europeans and natives suffered severely from fevers and dysentery. The station Staff Officer and the Engineer Officer were constantly attacked with ague, and so were the wives and children of the non-commissioned officers of the depôt.

The natives of all classes were attacked epidemically with this disease; numbers of them left the hill, and amongst the poorly-clad and badly-housed who remained the mortality from this cause and from dysentery was severe. I regret that no statistics of the native community can be furnished; but the following return will show the admissions, deaths, &c., from the different classes of disease amongst the men of the detachment of the 79th Highlanders for the six months they occupied the depôt:—

Average Strength 99	Admitted.	Died.	Ratio per 1,000 per Annum.	
Diseases.			Admitted.	Died.
Eruptive Fevers	1	1	20·2	20·2
Paroxysmal Fevers	41	..	828·2	..
Dysentery and Diarrhœa	13	2	262·6	40·4
Venereal Diseases	40	..	808·[illegible]	..
Hepatic Diseases	1	..	20·2	..
Diseases of the Chest	1	..	20·2	..
Rheumatism	1	..	20·2	..
Wounds and Injuries	3	..	60·6	..
Other Diseases	22	..	440·4	..
Total	123	3	2480·6	60·6

With regard to the above return, it will be observed that the principal admissions into hospital in 1871, were due to three classes of disease, viz. :—

Paroxysmal fevers ;
Bowel complaints ;
Venereal diseases.

The admissions from the first of these gives a high average of sick, bu the attacks were generally mild, and gave little anxiety for the safety of the patients. They showed, however, a marked tendency to recur in the same individuals, and to be preceded by painful congestion of the spleen and liver.

The latter was a curious clinical feature in some of the cases, and at first was a little puzzling, as it was a common occurrence for a man to come to hospital in the morning complaining of severe pain in either of these organs, and by the middle of the day to have become the subject of an attack of ague, and to have lost the symptoms of the morning. The majority of the men in whom this occurred had been some time in India, and had had fever in Peshawur, and probably in them the viscera referred to had undergone organic change consequent upon the intense malaria of that district, and it is a noteworthy fact that amongst the men of the 44th Regiment who have occupied the depôt this year, and who are fresh from England, the clinical feature under notice has not once been observed.

The attacks of this disease were further remarkable for the shortness of the cold stage, sickness of stomach, and severe headache during the hot stage, and a prolonged sweating stage, which brought to those accustomed to the disease complete relief until the next paroxysm.

The men who suffered habitually were pale and anæmic-looking, but, nevertheless they used to enjoy fair health in intervals of their attacks, and, except in two cases, I did not observe any enlargement of either the spleen or liver consequent upon this disease. In one man the spleen was considerably enlarged, but the patient said it had been so previous to his arrival at Puchmurree, but in the other patient, enlarged liver, ending in abscess, appeared to be a sequela of fever from which he constantly suffered here.

The next class of diseases to be noticed as causing admissions into hospital are bowel complaints, and this class furnished 2 out of the 3 deaths which occurred in the detachment of 79th Highlanders.* These bowel complaints—viz., 8 cases of diarrhœa and 5 of dysentery occurred previous to my arrival here, but I learned from the Medical Officer who preceded me that, in his opinion, they were due to a scorbutic condition of the blood which had become developed amongst the men, and the correctness of his view seems to be borne out by the mortality, 2 deaths out of 5 cases of dysentery being very high, and only likely to be experienced in the scorbutic variety of that complaint ; and, secondly, by the disappearance of the disease from the detachment on the receipt of an issue of lime juice.

The next class of diseases causing inefficiency is venereal, and the admissions from these diseases shew an extremely high average. This was to a great extent unavoidable during the early part of the occupation as no Lock Hospital had then been established and because, in addition to the regular prostitutes, there were numbers of Coolie women employed on public buildings who infected the soldiers, but over whom very litle preventive control could be exercised. The disease, however, was considerably reduced in frequency towards the end of the season by the establishment of a Lock Hospital, and the periodic examination of the public women and the men of the detachment. Of the other remaining diseases in the return, that under "hepatic diseases" has already been referred to as terminating favourably. An abscess formed was expectorated through the lung, and the patient made a good recovery. The case entered against "Diseases of the Chest" was one of acute pleurisy, which presented nothing unusual, and terminated in recovery, and of the other diseases in the return, none are of importance, and include such cases as hæmorrhoids, contusions from stones, warts, slight inflammation of the eye, &c., and, as they have no bearing upon the subject of this report, I will now proceed with the medical history of 1872, from the date of arrival of troops at the depôt on the 17th of March till the end of October.

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* The other death, as before mentioned, was due to a malignant form of measles. In addition to these deaths I may mention that there were two fatal cases amongst the men of the 1st Battalion 19th Detachment, one from pulmonary consumption and the other from abscess of the liver.

Medical history of 1872.

Before entering on this part of the subject, it is again necessary to notice the composition of the detachment 44th Regiment which occupied the depôt this year. Out of the 150 men, 62 were the unmarried soldiers of letter I company, in good health, and averaging about 24 years of age, 68 were very young soldiers who had not arrived at mature growth, and who were selected from the regiment as likely to derive benefit from the change of climate, and 10 were patients who were discharged hospital to accompany the party.

With regard to these patients, 9 of them were under treatment for trivial diseases, and were soon sent back to the ranks, and the other man was suffering from enlargement of the liver, so that, in considering the effects of the climate of Puchmurree, it will be necessary to bear in mind that out of the 150, all, with the exception of 25, were young soldiers, who had recently landed in India, and who had not arrived at developed manhood and one man was a patient suffering from enlarged liver.

On the arrival of the detachment at Puchmurree, the patients above referred to were taken on the hospital books, and in the next week a case of rheumatism and a few cases of trivial diseases, brought on probably by exposure on the line of march, were admitted, but towards the end of the month (March) the prevalence of intermittent fever became marked in the detachment, and from that date to the date of writing (November 3), there has been a constant stream of fever patients passing through the hospital, as will be seen from the following return:—

RETURN showing the admissions into Dep't Hospital, Puchmurree, during each month from Paroxysmal Fevers.

Average Strength, Rank and File.	March 17th to 31st.	April.	May.	June.	July.	August.	September.	October.	Total.	Remarks.
149·31	8	24	32	23	27	17	16	8	155	In addition to these cases shewn on the books as admitted 74 cases were treated by hypodermic injection of quinine and by quinine internally since the 1st of August, without admission.

The disease reached its greatest height in May, and might be described as of epidemic frequency, 32 men being admitted, and during this month it also became necessary to establish a convalescent party to whom quinine was given every evening as a prophylactic. Three cases of dysentery and 2 of inflammation of the liver also occurred in the detachment in this month, and one of the latter proved fatal.

In June the general health of the detachment improved, and I was able to dismiss a good many men from the convalescent list, but the number requiring admission into hospital from ague was nevertheless high, and amounted to 23.

The admissions from other diseases during this month were of no importance, but July was again unhealthy, as 27 cases of ague required admission into hospital, and the convalescent list was also increased; and in this month there occurred as well 14 cases of venereal diseases.

In August there was a decrease in the number of admissions from all causes; but, although the returns show only 17 cases of fever as admitted into hospital, that number does not accurately represent the amount of inefficiency from this cause, as I began in this month to admit only the more severe cases, and to treat the remainder without admission by the hypodermic injection of quinine, but the services of the men so treated (17 in number) were not available for duty of any kind while attending hospital.

In September ague was still prevalent, 16 cases being admitted and 29 treated without admission by the hypodermic injection of quinine, and in this month there occurred also 2 cases of severe remittent fever and one case of severe dysentery. The experience of the month of October was very similar as regards fever, 8 men being admitted into hospital and 35 treated as external patients; and in this month there also became noticeable amongst the men in about one-third of the number, a slightly scorbutic state of the gums, rendering the daily use of a ration of lime-juice necessary.

The medical history concludes with this month, and the following Return shows the admissions into hospital, deaths, &c., in the 44th detachment from 17th of March to October 31, 1872, from all causes:—

ADMISSIONS into Hospital up to 31st October, 1873, of Detachment 44th Regiment.

Average Strength .. .. 149·31			Ratio per 1,000 per annum.	
Diseases.	Admitted.	Died.	Admitted.	Died.
Eruptive Fevers	..	..	..	..
Paroxysmal Fevers	155	..	1658·7	..
Dysentery and Diarrhœa	9	..	95·7	..
Hepatic Diseases	6	1	63·6	10·0
Venereal Diseases	42	..	449·4	..
Diseases of the Chest	3	..	31·4	..
Rheumatism	1	..	10·0	..
Wounds and Injuries	4	..	42·1	..
Other Diseases	21	..	224·3	..
Total	241	1	2575·2	10·0

Analysis of the medical history of 1872.

In reviewing the medical experiences of this year, and eliminating such diseases as "venereal," other diseases, &c., which have no bearing upon the subject of this Report, it will be observed that the chief diseases have been:—

Malarial fevers;
Bowel complaints;
Diseases of the liver;
Diseases of the chest;
Rheumatism.

Malarial fevers have been extremely prevalent in the detachment as, in addition to the 155 men whose cases were severe enough to call for admission 74 men were treated without admission by the hypodermic injection of quinine and by other means whose cases do not appear in the returns, but whose services were not available for duty for almost as many days as if they had passed in the ordinary manner through the hospital. This arose from the fever, in the first instance; and, secondly, from the swelling and stiffness of the arm, which very frequently followed this mode of treatment, preventing the soldier from using his rifle. Clinically considered, the disease has usually been of mild type, and although every variety of this form of fever, from the mildest quarten ague to severe remittent, has been observed from time to time, still in the great majority of cases the symptoms have been such as to cause little anxiety for the patient, and this will be better understood on referring to the Mortality Table; no death having taken place in the detachment from this cause during the period. During the hot weather the attacks were accompanied by considerable suffering, and particularly a first attack; and they were further remarkable for suddenness of invasion, as it was very common for a man to have drilled on parade in the morning, breakfasted, and yet to be the subject of severe febrile symptoms by 10 A.M. No general description would apply to these attacks, but the rule was for them to commence with headache and giddiness and severe vomiting, and to these symptoms succeeded the pyrexia and sweating, and, on the following day, there was an intermission, incomplete certainly, but still sufficient to show that the disease was ague, although the shivering fit was absent.

A second attack during the hot season generally commenced with a cold chill, and this gave place once the rains began to the regular shivering of ague, and such is the character of the disease up to the present time, although I may mention that the cold stage is short when compared with the ague of other parts of India.

As in 1871, the disease recurs very often in the same individuals, as there are some men who have had as many as 11 and 12 attacks of ague since their arrival at Puchmurree, nor do these men appear to shake off the disease, and generally return to hospital after an interval varying from three weeks to a month. With regard to these repeated attacks of ague in the same men, it is very satisfactory to find how trifling it has been, as in 30 men who had suffered three times and upwards, and who were examined on the 24th of October, moderate enlargement of the spleen was detected in 5 only, and very slight enlargement in about the same number, while in the remainder this organ had undergone no detectable change. Such a circumstance may probably be accounted for by the short cold stage for which the ague prevalent here is remarkable, and of which an unfavourable contrast is afforded by the ague of Peshawur, where the cold stage sometimes lasts as long as 6 or 7 hours, and where the disease is invariably followed by enlargement of the spleen.

It should not be concluded, however, from the experience of the 7 months during which the 44th detachment have been at Puchmurree, that the fever here is of such a mild nature as not to cause serious splenic enlargement, as the time is too short for such a change to have taken place in the constitution of Europeans, even in the most notoriously malarious district, and besides, I have observed in a Mâli* in the public gardens here one of the largest spleens I have ever met with, and the same condition, but not to so great an extent, in other natives. Whether Europeans, during a second year's residence, would be similarly affected can only be decided by experience, but I have not observed such a condition in either the Officers, Staff, non-commissioned officers, or their families, who have been here a second season, yet against this it must be stated that, although these residents have all suffered from fever, they have not been the subjects of those repeated attacks under consideration.

In one man,† the disease was very severe, and since he was attacked in April he has done no duty, and has been almost continually in hospital. He is now under treatment for anæmia, due to malarial poisoning, and his constitution appears to be completely broken down, and as the veins of his legs have become extensively varicose, it is probable he will have to be discharged the Service.

The next class of diseases due to climatic influences to be noticed are bowel complaints, of which 1 case of diarrhœa and 7 of dysentery have been admitted during the season.

Of these the case of diarrhœa and 3 of those of dysentery were mild, and yielded easily to treatment. In one‡ of the remaining 4 the disease was severe, but recovered in about the usual time under ordinary treatment, and in the second,§ the disease was followed by an attack of remittent fever, and the patient died subsequently from an abscess of the liver. Cases 3|| and 4 occurred in the same man, and on the second admission the disease assumed a chronic character, and he was 89 days in hospital. He made, however, a complete recovery, and,

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* This man came to Puchmurree early in 1871 from Hoshungabad, where he says he had good health. During last year he was a continual sufferer from ague, and in this year, during the rains, his spleen began to enlarge, although he suffered but little from the fever.

† Private Edwards.

‡ Private Kemp, 44th Regiment.

§ Private Young, 44th Regiment.

|| Private James, 44th Regiment.

for about two months after he was discharged from hospital, on the 18th of August he had good health, when he became the subject of acute inflammation of the liver, from which he is now convalescent.

Six cases of hepatitis were admitted into hospital during the period, and 3 of these occurred in the same soldier, and who has already been referred to as having been sent here from Kamptee as a patient suffering from this disease. This man* has not benefited from his residence here; he has never been fit for duty, and his health is now so indifferent that it will be necessary to bring him before the annual Invaliding Committee with a view to his being sent to England for change of climate. In case 4 the disease was of a subacute nature, and followed a prolonged attack of fever; but the patient, although a long time in a serious state, made a good recovery, and is now in excellent health. Case 5 has been already alluded to as having proved fatal by the bursting of an abscess into the cavity of the abdomen, and the sixth case is under treatment at the date of writing, and likely to recover. (Since this was written the patient has completely recovered.)

Diseases of the chest come next, and this class gave three admissions, 1 from bronchitis, 1 from pulmonary consumption, and 1 from pleurisy. The case of bronchitis was admitted a few days after the arrival of the detachment, and was due apparently to exposure on the march, and was the only instance of disease of the air passages I have observed during the season. The patient who had pulmonary consumption arrived here with the disease in an incipient stage, and his case does not appear to have any bearing on the climate of the station. The case of pleurisy occurred in a patient who had been some time in hospital for another disease, and, although a very severe attack, he made a complete recovery.

With regard to diseases of the chest generally, I think I may venture to state that, although there is probably a greater liability here to inflammatory attacks, such as pleurisy, from rapid changes of temperature, still that the admissions from diseases of the air passages, such as bronchitis, are likely to be infrequent, owing to the dry nature of the atmosphere.

Of rheumatic complaints, 2 cases only have been observed in 1871 and 1872, and as one of these was "gonorrheal," and the other man contracted his attack on the march from Sohagpore, it seems probable that the soldier stationed here is not liable to this class of disease, and the explanation of the immunity is doubtless to be found in the dry nature of the atmosphere.

The medical history of the Officers, Staff, non-commissioned officers, and their wives and families has been very similar to that of the men, and, with the exception of 1 Officer of the 79th Highlanders, in 1871, and the Station Staff Officer, who has lately arrived, all, including young infants, have suffered from fever, and three officers have been invalided to England from the same cause. One of these was sent home by the Medical Officer who preceded me, but I find he has recorded in the Case-book that the patient (a very young officer) was the subject of an enlarged spleen.† The other 2 were under my own observtion, and during their stay here, their constitutions appeared to make no effort to shake off the fever from which they were constant sufferers, and one of them continued to have attacks of the disease for many months after reaching England. The other was the subject of enlarged liver as well; but, as he had been over 13 years in India, and contracted fever on the march from Saugor to Puchmurree, it is probable that the disabilities for which he was sent home were not altogether to be attributed to this climate.

The youngest infants did not escape the fever, but children a little older, although they suffered constantly on first arrival in '71, have enjoyed almost an immunity during the present season, and they have also been free from bowel complaints which are so liable to prove fatal in this class of Europeans in the plains.

Puchmurree considered as a Station for Healthy Troops.

From the experience of the two seasons during which it has been occupied, this question admits of an answer favourable to the station. The climate, in a measure, assimilates the life of the soldier to what he has been accustomed to at home, and he escapes, except for about six weeks preceding the monsoon, and even then to a great extent, the depressing influences of tropical heat. He also escapes from the many diseases which are due to the latter cause, such as ardent fever and heat apoplexy, and thus not only from two potent causes of death in India, but also from the numerous diseases of the nervous system which follow attacks of the latter disease, and from which the most hopeless cases are sent home as invalids.

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* Private Crouch, 44th Regiment.

† It is also stated that he had a rupture, but I am not aware whether this had anything to say to his being sent to England.

He is certainly exposed here to the constant prévalence of malarious fevers and this class of diseases, particularly in the young soldiers of the 44th Regiment, has been sufficient to keep up a high sick average; but, on the other hand, and again in favour of the station as a permanent one for healthy troops, it is to be recollected that the disease is of a mild type, and productive of no mortality.

Dysentery is another disease to which the European resident is liable and in 1871, the proportion of deaths to attacks from this cause was very high; but, as the Medical Officer under whose care the cases were was of opinion that the disease was scorbutic, and due to want of variety in the vegetable ration, that type of the disease might be looked upon as preventible, and on this account should not militate against the station. My own experience here would seem to confirm this opinion as, although a certain number of cases of dysentery have come under my treatment which have not been free from danger, I have seen nothing in their symptoms to indicate unsuccess to the station from this disease, and, before leaving the subject of bowel complaints, I may mention that the station, unlike those in the Himalayas, enjoys an immunity from what is known as "hill diarrhœa" and also from the fatal bowel complaints of children.

Diseases of the liver prevail here—probably it would be more correct to say that the station does not enjoy an immunity from hepatic diseases—and, as far as the small number of cases have enabled me to judge, it would appear that the disease runs the same course it does in any other part of India—viz., the majority of cases get well, while not a few terminate in abscess.

The next subject for consideration is the scorbutic condition of the gums which has been observable during the occupation. In 1871 it prevailed very extensively amongst the men of the 79th Highlanders, and at the date of writing it is observable, but in a much milder form, in about every third man of the detachment, 44th Regiment. With regard to the cause of this disease, it was attributed in 1871, as before stated, to a want of variety in the vegetable ration; and as there is yet insufficient means of varying this part of the diet (no vegetables except potatoes being grown in the station), it is probable that the same cause has been productive of the same condition this year, but whether it is likely to be a permanent characteristic of the climate can only be proved by more extended observations.

It will be seen from the above that the station possesses many advantages over those in the plains in India as a residence for ordinary troops, and some disadvantages, but as there are others on both sides of this question which cannot well be considered under the heading of medical experiences, I beg to place them in the following form:—

Advantages.	*Disadvantages.*
(1.) It possesses, for the most part of the year, a climate temperate enough to assimilate, to a great extent the life of the soldier to what he has been accustomed at home.	(1.) The constant prevalence of malarious fevers, of a mild type generally, but occasionally of sufficient severity to produce the characteristic poisoning of this disease, while the frequency of attacks keeps up a higher sick average.
(2.) Owing to the comparatively low temperature, he escapes from ardent fevers, heat apoplexy, and the other diseases due to heat, and thus from some of the great causes of death and invaliding in India.	(2.) The prevalence of scurvy of the gums, but, as before mentioned, a more extended experience is required upon this point.

(3.) Owing to the same condition of of reduced temperature, he makes a quicker recovery, and convalescence from climatic diseases than he would be likely to do from the same class of diseases in the plains.

(4.) His chance of recovery when attacked with climatic and inflammatory diseases is greater, and apparently from the same cause.

(5.) The yearly rate of mortality, from all causes, here is likely to be infinitesimal when compared with the death-rate of the plains.

(6.) Young soldiers appear to come to a higher state of development in this climate, or, in other words, appear to grow better than in the plains.

(7.) The station, unlike those in the Himalayas, enjoys an immunity from what is known as "hill diarrhœa," 'rheumatism," and the breaking out of secondary syphilitic diseases.

(8.) The advantages to be derived from an abundant supply of good water.

(9.) An abundant supply of grass, which produces a good beef ration for the troops.

(3.) The probability of a severe monsoon season, as 1871, when the rain was so continuous as to make the men discontented, and to interfere seriously with military and other out-door exercises.

Puchmurree considered as a Sanitarium for Invalids.

I regret that I cannot answer this question so fully as may be desired, but my inability arises from not having had suitable invalids upon whose disabilities the effects of the climate could be observed. As already mentioned, 20 convalescents were sent here from Kamptee with the 79th Detachment in 1871, but as no medical histories were sent with them to shew the diseases from which they had suffered in the plains, no opinion of any value can be offered as to the preservative or other effects of this climate upon them.* Two men of the 1/19th party from Saugor were sent here in 1871, suffering from enlargement of the liver; and one of them died from abscess, and the other, during seven months' residence, was not benefited, and left for England with this organ extremely enlarged.

The experience of the present year would seem to corroborate what was gained in 1871 as regards hepatic diseases, as the man of the 44th Regiment who has been already alluded to as having been sent here in March last with enlarged liver has since been three times, or 77 days, in hospital with the same disease. He has never been fit for duty; and at the date of writing (November 8th), in addition to the enlarged liver from which he still suffers, he is pale and anæmic, and will have to be brought before the Annual Invaliding Committee with a view to his being sent to England for change of climate. It is not attempted to express a condemnatory opinion from this limited experience; but, although doubtless the station would be suitable for such cases as debility, dyspepsia, and other minor diseases due to tropical heat, still, when the amount of fever here is recollected, and that it is in this disease so much benefit is derived from removal to higher altitudes, it would appear unreasonable to expect any great result from a change to this climate.

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* I have previously stated, in a report written for the information of His Excellency the Commander-in-Chief, that the greater number of these 20 men had suffered from fever at Kamptee, but I think they should not be looked upon as the "invalids" who are sent yearly to Hill Sanataria, as that party from the 79th Highlanders in 1871 was sent to Wellington in the Neilgherries.

Such an opinion, however, is only speculative in the present young state of the station, and would no doubt be much modified by-and-bye if the place were brought into conformity with the settlements of civilized men by drainage, jungle-clearing, and moderate cultivation.

Causes of Disease at Puchmurree.

This question resolves itself into—What are the causes of the malarious fevers which prevail here? as they are the only diseases which appear to have an important bearing upon the success of the station. Many scientific theories have lately been brought forward to account for malaria, and of which instances might be furnished from here, such as the presence of iron in the soil,[*] the constant changing of the level of the subsoil water,[†] and the extensive prevalence of fungus diseases in plants and animals;[‡] but the following would appear to be the more practical causes of this unknown condition at Puchmurree, and I shall conclude this report with a discussion of them and the means that appear to be necessary for their removal:—

1. The extensive prevalence of undrained land in the station.
2. The extensive prevalence of uncleared jungle in the station and in the ravines which surround it.
3. The presence of marshes in the valleys which immediately bound the plateau, and from which funnel-shaped ravines (the best-known of these is called the Gai Mookh) lead into the station.
4. The presence of decaying vegetation, especially in the late autumnal months.
5. The vicissitudes of climate.

Regarding the first of these causes, it may appear a little curious to anyone unacquainted with the station, or to anyone who may visit the station in the dry season, to hear it described as undrained; but the question becomes very easy to understand if it be recollected that instead of a plateau, as it is generally called, Puchmurree is really a large basin into which the drainage of a range of hills sinks and finds an outlet.

In the monsoon season this undrained condition of the soil becomes very apparent, and at that time of the year the two great valleys which I have formerly described as constituting the basin, as well as the smaller valleys through which the drainage of the hills finds its way to the "Bungungah," assumes a marshy condition, and water is then found throughout them on a level with the surface. In support of this statement, I may mention that in 1871, before any improvements had been made, the water in the cantonment wells was exactly equal with the surface, and was so described week after week in the returns which were furnished to the Sanitary Commissioner, Central Provinces.

During the present year, at the recommendation of the writer, a number of surface drains were cut through the centre of the valleys which lie more immediately near the barracks and station, and two of these cuts were carried close to the above wells; but although they prevented the valleys becoming marshy, as was the case in the previous monsoon season, that they did not materially assist in removing water from the soil may be seen in the following return of the height of the water level taken on the 23 September 1872.

No. of well.	Distance from surface of ground to surface of water.		Remarks.
	ft.	in.	
No. 1, opposite site of Hospital Barrack ..	2	1	Comparatively little water is drawn from this well.
No. 2, opposite No. 4 Barrack	4	3	The supply for the barracks, hospital, and for some of the private houses is drawn from this well.

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[*] Sir Ranald Martin.

[†] Numerous writers.

[‡] Staff Assistant Surgeon H. Massy and others.

From the remarks and returns it will be observed that the soil, although a sandy one, does not rapidly free itself from water, or, in other words, becomes water-logged during the monsoon season in the valleys and hollows; and that such soils are malarious, and continue to be so until they are drained, is now generally recognised. Drainage on a large scale is therefore recommended.

The condition of the subsoil (or, rather, of the sandstone rock, which for the most part represents that structure here) has already been referred to as retaining water throughout the year; and this arises apparently from two causes: firstly, from the drainage of the hills which surround the basin, passing through it towards the watercourses in the centre of the valleys; and, secondly, from numerous veins of rock which cross the course of these streams and to a great extent interfere with their outflow once the dry season commences.

A structure of this nature which does not rapidly free itself from the rain-water which it absorbs in the monsoon season, and from the drainage which is poured into it from higher levels, is generally looked upon as a source of malaria, although the soil above it may be dry and porous; but the condition, no doubt, would be a very difficult one to deal with here. I believe, however, that a great improvement might be effected were the rainfall speedily removed by large surface drains through the centre of all the converging valleys, and the quantity of water which soaks into the soil in the monsoon lessened; and, secondly, if the outflow of the Bungungah was quickened by the removal of the numerous obstructions which make its waters stagnant in many parts of its course.

The necessity for the removal of the second cause of malarious disease I have mentioned—viz., "trees and undergrowth in unusual numbers," is very apparent, as they attract the malaria which is generated by the soil and prevent its diffusion and spread by the atmosphere. The removal of such a recognised cause of disease as this will probably be only a question of time; and in recommending it I do not wish to be understood to advocate the destruction of any of the useful or ornamental woods, such as the Hurra, Mowah, Jamin, Beherah, Siriss, Semul, &c.; but as there are great numbers of trees which do not admit of the above terms being applied to them, and are for the most part of stunted and diseased growth, such as the Saj, Aoula, Tendoo, and dwarf date, I think their removal would add to the beauty as well as to the healthiness of the station. The localities where such a sanitary improvement would be advisable would be carried out by the authorities for the time being according to requirement, but there is one place which I would beg strongly to bring to notice as urgently requiring it—viz., the ravines which skirt the barracks on the eastern front, as I have invariably observed that when the wind blew for any time from this point during the past season there has been an increase in the admissions into hospital from malarious fevers.

The expense of such a sanitary improvement is apparently the greatest objection to it; but upon this point, although perhaps not within my province, I would venture to suggest that it might be carried out by fatigue parties of the men, as I believe the more physical exercise the soldier takes in this climate, provided he is not exposed to the midday sun in the hot weather or the rains during the monsoon season, the higher state of health he enjoys.

With regard to the third cause of malarious disease—viz., "marshes in the "surrounding ravines," I may mention that such conditions exist on three sides of the plateau, and that funnel-shaped communications lead from those swamps to its edges. It is thus possible for malaria generated in these marshes to reach the station; but, as their surface area is not large, it would appear that no serious danger is to be apprehended from them, and should they be proved to be a source of disease after the sanitary state of the station was improved, their drainage could be very easily effected.

The fourth cause of malaria—viz., "decaying vegetation in the autumnal months," would be impossible to remove with the present limited population of the hill; but, doubtless, if the station became a large one, the increased herds of cattle necessary for the maintenance of a large body of troops would contribute much to reduce this cause of disease by keeping down the present luxuriant growth of grass.

The "vicissitudes of climate," which I have enumerated as the fifth, although probably not a cause of malaria, are no doubt accountable for the development of a certain number of attacks of fever in men who are predisposed; and it appears reasonable to think that a great deal may be done towards reducing the admissions into hospital from this cause by precautionary measures directed to the conditions of the climate, such as confining the soldier to barracks in the middle of the day in the hot weather; making him change his clothes when wet in the monsoon season; altering his clothing as may be necessary during the other seasons of the year, and reducing the temperature of his barrack-room in the hot season by the erection of a properly-constructed roof.

Since the above was written most of the sanitary recommendations set forth in it have, I believe, been carried out, and with, I have been informed, results satisfactory to the invalid residents.

PUCHMURREE,
October, 1872

APPENDIX No. IV.

MEDICAL REPORT OF THE SUNGHIE-UJONG FIELD EXPEDITION NOVEMBER 1874 TO MAY 1875.

By Surgeon J. McNamara, A.M.D.

On the evening of Saturday, 21st November 1874, information was received by the Honourable the Lieut.-Governor of Malacca, from Mr. Pickering, who, at that time, was a Government agent with the Tunku Klana Putra of Sunghie-Ujong, to the effect that the Klana's house, in which Mr. Pickering resided, was threatened to be attacked by a large body of hostile Malays. The result of a consultation between the Lieut.-Governor and Major Stammers, who commands the troops at the station, was that 27 men of the Malacca Detachment 1st Battalion 10th Foot, were to be got in readiness to embark for Sunghie-Ujong on the following day. At this time, the Colonial Surgeon of Malacca was on leave; as I was, therefore, the only doctor at the station, it was decided that the Civil Apothecary should accompany the troops. On Sunday, the 22nd, I saw that the apothecary got together the medicines, surgical appliances, &c., that I considered necessary. I gave him a general heading of his duties, and requested him to furnish me with the fullest information as to the health, &c., of the men on every available opportunity.

I then inspected the men, looked at their kits, and found everything correct. Each man carried with him the usual white drill uniform, white helmet, forage cap, the red serge jacket, spare boots, socks, &c. The Colonial Government supplied each man with a flannel shirt and a pair of canvas boots; the latter were the more necessary as the October issue of boots had not arrived at the station. It was decided that the packs and blankets were to be carried for the men through the jungle. About 4 P.M. a small steamer was in readiness to convey the troops to Permattan Passir, a village on the Sunghie river, about 39 miles from Malacca, where the men were to disembark and continue the march through the jungle to Sunghie-Ujong, distant about 34 miles. The following detail paraded and embarked at the time mentioned above:—

Two Lieutenants and 27 men 1st Battalion 10th Foot; 30 Native Police, under the Acting Superintendent; the Civil Apothecary; the whole being under the command of Lieutenant Palmer, 1st Battalion 10th Foot. The Lieutenant-Governor and the Officer Commanding communicated with headquarters at Singapore by the mail of that day; the result of which was that on the following Wednesday morning H.M.S. "Charybdis" anchored in the Malacca Roads, having the Governor of the Straits Settlements and troops from Singapore on board.

Later in the day, about 2·30 P.M., I received a communication from the Senior Medical Officer of the Straits Settlements that I was to report myself to the Officer Commanding on board, and assume medical charge of the Expedition. The Colonial Surgeon having returned, I immediately set to work and made the best use I could of the short time at command, as I was ordered to embark at 5 P.M. I must add that his Excellency the Governor of the Straits Settlements, aware of the short notice I received, kindly sent intimation to me that he would give me up to the last moment—fully an hour after the time that others had to be on board—to report myself. Having ascertained that an orderly of the Army Hospital Corps was on board, I placed my serjeant, Army Hospital Corps, under orders to accompany me. I then got some medicines, surgical appliances and instruments, medical comforts, &c., together, and left the Malacca pier in a steam-launch, with his Excellency the Governor, Captain Tatham, R.A., and a few other officers of the Expedition. Having reported myself on board, I ascertained that the following troops were to take part in the Expedition, under the command of Captain Tatham, R.A.:—

Royal Artillery—1 officer and 25 men; 1st Battalion 10th Foot—2 Lieutenants and 54 men; Control Department—1 Officer and 1 Serjeant, Army Service Corps; Army Hospital Corps—1 non-commissioned officer and 1 orderly; Medical Officer—Surgeon McNamara, A.M.D. Having weighed anchor, we found ourselves, on the following morning, 26th November, off Lookut Bay. After breakfast and sundry preparations, we disembarked at 9 A.M.; being towed about 2½ miles up the Lookut, we arrived at a Malay village called after the river; here our march through the jungle for Sunghie-Ujong—distant about 20 miles, was to commence.

A Naval Brigade, consisting of Lieut. Jones, Royal Navy, in command; 3 officers and 56 men of the Royal Navy, together with 1 officer and 26 men of the Royal Marines, also landed; Surgeon Gibson, Royal Navy, being in medical charge. Owing to the difficulty of obtaining coolies for the transport, a halt for the night had to be made here.

The basis of operations was established at this village, there being easy communication with H.M.S. "Charybdis," which anchored in the bay. The Control Officer remaining; the guard being furnished by the Royal Marines. Sufficient accommodation not being procurable in houses, tents were pitched; the scene soon became a busy one, preparations for dinner being carried on in a lively and energetic manner. It was here I saw, for the first time, what an amount of latent energy the British soldier can summon to his aid in providing for his bodily comforts. The day was fine, and everybody enjoyed the novelty.

On the morning of the 27th November we all turned out, preparing for an early start. Cocoa and biscuit were served out, and, anticipating a hard day's march through the jungle path, I administered ii gr. of quinine to each man; we then awaited daylight and the arrival of the coolies. At 6 A.M., everything being ready, the "fall-in" sounded, and the march commenced. The men wore white clothes, helmets, gaiters, the blanket folded over the shoulder—containing a change of clothes—the rifle and 60 rounds of ammunition being also carried. The morning was fine, and, at first, the path was fair; soon, however, rain came down with tropical force, altering the aspect of affairs. As we advanced, we found ourselves now wading knee-deep through marshes, then carefully walking in Indian file along the fallen trunk of a huge tree; soon we saw that a large sheet of water had to be walked through; then a stream to be crossed, wetting us halfway up the thigh; a succession of these, with hills and valleys, through the dense monotonous jungle, brought us to our first station Banban, at 2·30 P.M., a distance which we thought at the time to be fully 20 miles, but which in reality was only 10. It rained, with little intermission, the whole time, and, needless to add, we were wet through in the first five minutes. During the march, Dr. Gibson was with the front; I followed with the rear. The men of the Artillery had very hard work, as, owing to the scarcity of coolies, they had to render a good deal of assistance with the gun. During a halt, I noticed one of these men looking exhausted; I questioned him; he said he felt very tired. However, a little brandy-and-water revived him, and he resumed the march. At Banban, Dr. Gibson told me that a man of the 1st Battalion 10th Regiment also complained of exhaustion and a feeling of coldness. He continued the march after a little rest and a small quantity of quinine in rum. The stoppages caused by the heavy transport were very trying to the men. During the halt, under the friendly covering of a few old sheds, biscuits and preserved meat were served out cold—it being impossible to get a hot meal. The men washed their boots, feet, &c.; the clothes were wrung to get some of the wet out of them. At the "fall-in," 4 P.M., I found that 5 men of the Royal Artillery were unable through exhaustion to resume the march. This did not surprise me, as I was an eye-witness to the great fatigue borne by them. They were left behind with orders to follow up early next morning. I gave them quinine, with instructions as to its administration.

All the other men falling in, the march was resumed. As we advanced, the rain ceased—the ground remaining very heavy; numerous trunks of trees had fallen across our path; we soon, however, got into a more open country, and, as we heard the sound of numerous heavy guns some miles in front, the pace was quickened, and the men became more cheery. At night-fall we arrived at the compound of a friendly Malay Raja. Here we were housed comfortably; dry clothes were put on to sleep in; a meal of biscuits and preserved meat was given, and a full dose of quinine to each man; everybody was soon afterwards asleep.

On the 28th we turned out early; abundance of hot chocolate was made; biscuits served out; the men were ordered to dress in their yesterday's wet clothes, as it was then raining, and the path to be marched over was reported very deep and muddy—a fact that we soon ascertained for ourselves. Before marching I served out ii gr. quinine to each man. At 10 A.M. we arrived at Sunghie-Ujong—a distance of about 5 miles, met Lieutenant Palmer, and were informed that the enemy had fallen back on his most powerful stronghold—Kopayang. A large eight-roomed bungalow was assigned to us as quarters. I found a well of good water close by, and had a sentry put on it. I then gave directions how to make most use of the water—namely, that the water from the well itself was to be used for drinking and cooking, and the overflow was to be used for washing purposes; fires were lighted, a bullock was killed, and everybody felt happy. Slight rain continued during the day.

About 11·30, I walked with some of the other officers to Ampangon, a mile and a-half further on, where the Tunku Klana lives. Here we found the Malacca Detachment quartered. I ascertained from the Officer commanding this detachment that having weighed anchor at 12 midnight on the 22nd November, they arrived off the mouth of the Sunghie river on the following morning, being conveyed up it in small boats; about 9 miles from the mouth, they arrived at Permattan Passir at 3 P.M.; here they were housed for the night. On the following morning they marched early, and, after a very hard day's work, arrived at Rantow that evening. There they found house-shelter for the night. On the following evening they arrived at Sunghie-Ujong. This was a far more difficult march than the one *viâ* Lookut, the distance being longer—swampy the greater part of the way. The men were several times waist-deep in mud and water. The apothecary had carried out all my instructions as to the halting grounds, the changing of clothes, administration of quinine, hot meals, &c., and judging from results, with very good effect. I heard several people declare that it was the worst path they ever saw. This detachment was supplied with three days' rations of bread, live fowls, &c. On examining the men I found that three of them were suffering from slight ague and diarrhœa, "but nothing to prevent us from going at the enemy, sir," as they said.

I returned to head-quarters, and found the men hard at work, some preparing food, others drying clothes, cleaning rifles, and examining the ammunition that had been under water, &c. About 1 P.M., the Malacca Detachment marched out to explore the enemy's stronghold at Kopayang, 3 miles from head-quarters. At 3·30 P.M., the "fall-in" was heard. The men were all fallen in, and advanced on Kopayang. Meeting the exploring party, we arrived opposite the stockade soon after 4 P.M.; a few rockets were fired, but the range was too short to permit of their taking effect. The men were now thrown in skirmishing order, and getting as much shelter as possible from trunks of trees, mounds of earth, &c., a heavy fire was opened at about 300 yards. The enemy's heavy guns took no effect, as they were evidently levelled at some imaginary people on the trees behind us, the shots going high over our heads; not so with the small-arms, however, as the whizz and dull thud of the bullets indicated much closer firing. One after the other of the enemy's coboos or redoubts was silenced. The darkness setting in, we had to retire for the night, after an hour's well-sustained fire; as we were crossing a small opening, a stray bullet hit one of the Naval Brigade close to the spine; the poor fellow died a few days after.

On the following day, Sunday, the 29th, the attack was not renewed, owing, I believe, to the receipt of some communication from his Excellency the Governor. Nothing of importance happened during the day.

On Monday, the 30th, we again marched for Kopayang, with everything in readiness for a good day; but, to our surprise, the enemy had flown. We examined the fort, spiked guns, and burned all the houses. About 3·30 P.M the men returned to dinner.

Tuesday, 1st December, we were unable to follow up the enemy owing to the want of a guide, we therefore had to content ourselves with collecting spoils, &c.—nothing of note occurred. The three following days were occupied in scouring the country in different directions, house shelter was always found at night; constant rain the whole time. After this work six men had to fall out—a few for want of boots; three more on account of slight fever and diarrhœa.

December 5th.—To-day we expected to be rewarded for all our disappointments on the previous days by coming up with the enemy in his last stronghold, Qualla-Labu, about 18 miles distant. An early fall-in was ordered; but, owing to the coolies not coming in time for the transport, we were unable to start as soon as we desired. The morning was fine, and, at 6·30 A.M., we marched (30 men in all). The path was good for some distance, we then had to cross a stream hip-deep; after this we found a very fair jungle-path, with hills and streams—most of the latter had to be waded, as, except a tree fall across the stream, the natives never think of making an artificial bridge, preferring, through laziness, and perhaps for cleanliness sake, to wade. At 3·30 P.M. we were within a mile of our destination. Here the path was the worst I ever saw—a regular buffalo walk, the mud being knee-deep and a very slippery bottom. It took us a good hour and a-half to get over about three-quarters of a mile of this path. We at last entered the large open compound, and doubled up to the different houses in succession; only two shots were fired at us; one of the enemy was killed; the place had been almost deserted. The darkness set in at the conclusion of our day's work; we then selected a comparatively comfortable house, a huge fire was lighted, hot cocoa and grog were served out, the men had dinner, and afterwards sleep.

The following day being Sunday, was proclaimed a day of rest; it was much wanted, as the men were very tired; a nice stream being close by, we all bathed; clothes were washed and afterwards dried at large fires, the sun not favouring us. In the afternoon, foraging parties set out, returning laden with fowls, and a hind-quarter of a buffalo that they shot. We had a capital feast, and retired early.

December 7th.—Prepared for the return journey at an early hour; found that one of the Naval Brigade, who injudiciously walked about in bare feet on the previous day, required to be carried in a stretcher—a sharp spike of bamboo having cut him in the foot; we burned all the houses before leaving. On arrival at one of the larger streams on the return journey, we found two ways of crossing—the one by means of the branching top of a large tree that had fallen across; the other more simple—namely, wading. Most of us chose the latter; those more adventurous, the former; among these was a sailor, who, some way or other, missed his footing, or a branch broke; however, he fell into the stream; one of the 1st Battalion 10th Regiment immediately shouted, "a man overboard—throw him a life buoy." This little sally caused great merriment among the men. We arrived at head-quarters about 4 P.M., nothing worthy of recording having occurred. We were afterwards told that during our absence from Sunghie-Ujong, the Chinese were fighting among themselves. The next few days were occupied in quelling these disturbances and disarming the Chinese.

On the morning of the 9th, the first serious case of sickness appeared in one of the young soldiers from head-quarters at Singapore—namely, intermittent fever.

December 11th.—2 Lieutenants and 40 men of the 1st Battalion 10th Foot, 15 men Royal Artillery, together with the whole of the Naval Brigade, left for Singapore, *viâ* Lookut. The numbers remaining were—1 Captain, R.A., and 10 men; 2 Lieutenants 1st Battalion 10th Foot and 41 men (including the case of remittent fever left for treatment). I remained in medical charge. Nothing of note happened for several days; the men set to work making themselves more comfortable. Occasional reports were received that armed bands of Malays waylaid Chinese coolies on the different roads, robbing and murdering them; in such cases, about 20 soldiers would be sent to try and come up with the cowards, but never with success, the jungle being too dense.

On the morning of the 10th of January 1875, news was brought in, that a small village about 2½ miles off, was attacked by Malays; 24 of the men were marched to the scene at daylight; we found that the Malays had retreated; we followed them up for about five miles through the jungle, when, at the extreme end of a long clearing, we saw the men we were in quest of, running out of a house, and making for the jungle. Pursuit was given, and as they would not stand, they were fired upon, with the result of 1 wounded, 1 prisoner, and from marks of blood on the borders of the jungle, we concluded that some of the others carried lead with them. The wounded man, whom we brought with us, afforded me a very interesting case of gun-shot wound. The troops were called upon to make several journeys into the jungle on errands of this kind; a description of each would be of no interest. Little else occurred for some months after—the country becoming more settled. As I write, the month of June has arrived, and with it an Officer of the Army Medical Department to relieve me of the medical charge at Sunghie-Ujong.

Having given a general description of the Expedition, I will now consider each subject under a separate heading, adding a few notes about the country, the Malays, and their diseases.

Provisions.

The Malacca Detachment was, as I before stated, supplied with three days' rations of bread, live fowls, tea, sugar, &c.; it was intended to forward a further supply, should such be needed. When the head-quarters disembarked at Lookut, preserved meat, biscuit, preserved potatoes, rice, flour, and chocolate were supplied, all obtained from H.M.S. "Charybdis," of good quality—the chocolate, as served out in flat cakes, I consider as especially suitable, the mode of preparation being very simple—merely hot water, into which the chocolate reduced to powder, with a little sugar, is placed; after a few minutes it is served up, and proves very palatable. On arrival at Sunghie-Ujong, all the men got fresh bullock meat for a few days. The supply not being equal to the demand, this luxury had to be discontinued. Water-buffalo meat, as well as fresh pork, was occasionally given; the latter was too fat, the men not liking it on that account. Fowls formed the ration twice a fortnight. Owing to the nature of the campaign, the men at first had their principal meals daily as opportunity presented itself; hot chocolate and biscuits were issued early every morning, and, as a morning meal, could not, in my opinion, be improved upon. When matters became quiet, a ration, as per scale appended, was issued about the 3rd month; bread formed part of the scale—an enterprising Chinaman catering for our wants; we had tried to make bread previously in a hastily constructed field oven, but failed for want of yeast—the native tuivak or toddy refusing to ferment. It is worthy of remark that the chocolate, appreciated at first, did not find much favour afterwards, to be explained, I think, by the fact that the exertion being over, the large amount of albumen and fat contained in it were not required. The ration of rum will be noticed under the head of "Spirit ration." Lime-juice was served out with the salt meat on my recommendation; it formed a very agreeable drink in the proportion of one ounce of lime juice, half an ounce of sugar, and ten ounces of water, and by the men much appreciated during the heat of the day.

Ration Scale.

a. $1\frac{1}{4}$ lbs. of fresh meat, 1 lb. salt, or 1 lb. preserved.
b. 1 ,, bread, or 15 ozs. of biscuit.
c. 1 ,, fresh, or 8 ozs. preserved vegetables.
d. 2 ozs. of rice.
e. $\frac{5}{7}$ oz. ,, tea, $1\frac{3}{7}$ oz. coffee, $1\frac{1}{3}$ oz. chocolate.
f. $2\frac{1}{2}$ ozs. sugar.
g. 1 oz. salt.
h. $\frac{1}{2}$ gill of rum.
i. $\frac{1}{8}$ oz. of pepper.

Spirit Ration.

The Expedition started from Singapore and Malacca, no provision being made for a spirit ration; tea, coffee, and chocolate were to take its place. The Malacca men performed their journey to Sunghie-Ujong without spirits. When off Lookut, it was decided for the first time that a Naval Brigade be landed; then the difficulty arose. The Naval Officers stated that the blue jackets could never get on without their usual grog, and they decided to let them have it. The Officer commanding consulted with me, and we weighed the matter thoroughly. It was decided that a ration should be given, but that we were forced to do it; the rum was accordingly landed. It was certainly a pity that we could not carry out the original intention. The Malacca men performed very hard work without spirits; the others could have done the same. Half a gill of rum formed the ration; it was always served out after the day's work. This ration was continued for a long time; however, when traffic on the Sunghie river was reopened, I suggested that porter could be sent up, and given instead of rum. The Control Department immediately sent some up the river, and greatly to the men's delight, as they preferred the porter to the rum. I may remark that the Control Officers were always most willing to carry out any suggestions. During our first two months' residence in Sunghie-Ujong no spirits—with the exception of a small quantity on arrival—were obtainable outside. The men were remarkably free from disease, and the conduct was all that could be desired, till one man of a more enquiring disposition than the others discovered the abode of his friend Bacchus, under the guise of arrack, in the Chinese village. He, of course, introduced his friends, and then numerous visits were made with usual results. An amusing incident occurred one day as we were all resting on our beds in the verandah—the thermometer standing at 80° F., with a damp atmosphere. One Officer, who was deeply absorbed in the "Field Service," by Sir G. Wolseley, read aloud for our instruction from Part II., page 172:—"It is an ascertained fact that alcohol of "any sort reduces instead of increases the temperature of the body." The cooling effect of Commissariat rum was immediately tried. I am not prepared to give the result; some Officers holding that it was not a fair trial, the ration not being large enough.

Clothing.

As before stated, the Malacca Detachment carried with them the knapsack—containing boots, socks, flannel shirts, white drill clothes, cholera belts, &c. The tunics and any kit not required for the service were left behind; the men embarked in white helmets, red serge frocks and white trousers; the packs, blankets, &c., were carried for them through the jungle. The Officer commanding told me that the men marched from Permattan Passir to Sunghie-Ujong in helmets, flannel shirt sleeves, white trousers, carrying the rifle and 60 rounds of ammunition. This I afterwards found to be an excellent dress for jungle marching. The men from Singapore brought a similar kit; but, on arrival at Lookut, transport being scarce, they had to leave their packs, and fold a change of clothing in their blankets, which they carried in addition to the rifle and 60 rounds. It was unfortunate that transport could not be obtained for the packs, as then the clothing would be kept dry during the rain. It will be difficult to find a better dress than the wicker helmet with white cover as served out, the white drill suit, and occasionally the red serge frock, flannel shirt, and the regulation boots. The helmet kept its shape, and was uninjured by the rain; those made of pith get heavy, sodden, shrink, and lose shape. When the Expedition started from Singapore the October boots had not arrived, owing, I believe, to a break-down in the steamer; this was a pity, as marching through the jungle tested the boots severely—the old ones giving way at once, and left he men rather badly off. The long Wellingtons of the Artillery were rather a nuisance to the men, as when we crossed through water knee-deep the boots filled, and then on the opposite bank the knee had to be flexed to empty the water out. We had not a single case of foot-soreness throughout the marching. About the end of January one man wore boots without socks—these being very scarce, and made the first case of foot-sore. The gaiters were worn at first, but soon discarded, the lower ends of the white trousers tucked neatly inside the socks being much more comfortable. Flannel next the skin day and night forms a comfortable, healthy covering; cholera belts were worn throughout the campaign—each man having two; the proper time for wearing these is, in my opinion, when the body is at rest, after the day's work, and also in bed at night time. I don't think they are of much use when the circulation is kept up by exercise, as then a cool breeze can have no effect on the warm skin of the abdomen. It is when the body is at rest, the circulation calming down, the skin of the abdomen moist with perspiration, that a cool breeze, causing evaporation, produces a chill in that part of the body which is so liable to tropical diseases; it would be difficult to impress this on the soldier; therefore the best plan is to have him carry out the usual instructions.

Water.

The men from Malacca were provided with soda-water bottles, covered with canvas, having a shoulder-strap of the same material; these answered admirably. The Singapore men were unprovided with water-bottles. I believe that no regulation water-bottles were in store in the Straits. On board the "Charybdis" we collected as many soda-water bottles as possible; these not being liable to break, the men carried in their haversacks; all were filled with good water previous to disembarkation. During our march through the jungle, whenever suitable water was found, the bottles were refilled. The jungle was plentifully provided with nice clear streams; this was owing to the heavy rains preventing stagnation. On arrival at Sunghie-Ujong, a good well was found. A Malay man also pointed out another, about 100 yards distant, which I at first considered would answer for washing purposes; but it was close to a large Chinese village, the inhabitants of which bathed there, and as the Tinea-Tonsurans, or ring-worm, flourishes in most of their skins, I discarded the supply. The first-mentioned well being, then, the only one for use, the channel for the overflow was cleared, a small off-shoot as it were was made from this, in which the men were to wash the face and hands; lower down, provision was made for clothes washing. Some weeks afterwards we examined a large pond, about half a mile distant, and, through the energy of Lieutenant Peyton, of the 1st Battalion of the 10th Foot, and a fatigue party, a comfortable bathing-place was made, of which luxury the men availed themselves regularly. This frequent bathing had a great deal to do with the excellent health the troops enjoyed. Filters of sand and wood charcoal were made; though the water was not very good, I could attribute few diseases to it.

Habitations.

Houses of some description were found at the end of each day's march; tents were pitched at Lookut, the house accommodation not being sufficient—the ground being covered with tarpaulin. On arrival at Sunghie-Ujong, the Malacca Detachment was housed at Ampangon; the surrounding ground, though elevated, was badly drained, the surface water rendering it sodden. I was glad when we found accommodation for them at Seramban, when the main body marched back; to these damp surroundings, I attribute the slight diarrhœa and ague that appeared there.

At Seramban, the head-quarters, we found a good-sized bungalow, two-stories high, attap roof, with a verandah in front. It was 51 feet by 48, and divided into four rooms on each storey. When the strength of the troops was lessened, only the upper storey was used, the officers contenting themselves with the verandah. This house—built by chance for an Eurasian outlaw—was situated on the side of a small hill; on a lower level, the large Chinese village flourished. The men were allowed small superficial space, but the ventilation was good, everything being open. As many as nine officers lived in one end of the verandah, the other being used as a store. I have now lived for over six months in this verandah, surrounded by plenty of fresh air, but too much damp. To avoid putting on damp garments we used to sleep in our clothes of the following day.

Cooking.

When a large number of men were here, the cooking was carried on as best it could, the field cooking apparatus being used; when the number diminished, a small shed attached to the bungalow, originally built as a cook-house, was used. I condemned this on sanitary grounds, and, on my recommendation, a proper cook-house was built, about 20 yards off; an old cask, covered with clay and charred on the inside, was used for baking purposes.

Conservancy

On arrival at Sunghie-Ujong, a latrine trench was dug; this was carefully attended to, dry earth being thrown on daily. The trench, having a moveable attap roof, was changed occasionally; the path leading to it was kept dry and clear. At night, urine tubs were placed near the bungalow, and removed the first thing in the morning; surface drains were constructed around the bungalow to carry off rain-water; all refuse matter that could not be burned was buried in deep pits. As a large number of men were placed together in a bungalow that was not fitted up with any of our more modern systems of conservancy, I recommended that some disinfectant powder be supplied from Singapore. A large quantity of carbolic acid powder was accordingly forwarded, which we used with the best results.

Transport.

The provisions, ammunition, packs, &c., were carried through the jungle by Chinese coolies. The small packages were carried on the shoulder, one being placed at either end of a neat flat piece of wood, or simply a piece of bamboo about 5 feet long; the larger and heavier packages were tied to the centre of a long pole with 2 or 3 coolies arranged at either end after a fashion of which they are masters—the shoulder being always the part to bear the weight. The Chinaman has no idea of carrying a weight in the hands with a shoulder-strap, as our regulation stretcher would require of him, we had, therefore to make alterations to meet the circumstances; this was done simply by getting two stout bamboos, about 12 feet long, run them through the sides of the canvas, connect, by two cross-pieces at the foot and head, 2 other shorter cross-pieces from the end of one pole to that of the other, so that they almost meet; then the stretcher was carried safely on the shoulders of 2 coolies—sometimes 4 were required. In any future jungle expedition, where Chinese coolies would be used, I would suggest for the transport of men disabled through sore feet, minor injuries about the feet and hands, &c., &c., that a chair—on the plan of the "mountain chair," so well known in Hong-Kong—be employed; it would simply consist of 2 long poles made of some elastic wood, connected and almost meeting at the ends; a fixed cross-piece, well padded, stretching from pole to pole just behind the middle, to act as support for the man's back; in front of this, 2 short ropes would be let down from each pole to support a flat piece of timber, which would be the seat; more in front two larger ropes, arranged in the same way, would support the foot-piece. In this chair a man could be easily carried through the jungle; a cover could be put on. The centre of gravity would be lower than when the stretcher is carried on the shoulder; and it must be remembered that to have one of the bearer's hands free to use a stick for steadiness, &c., is very necessary; besides, I doubt if a stretcher could be carried in the hands for 18 or 20 miles without a large number of bearers. These chairs would be easily packed, and 2 coolies could carry six or eight of them when not in use; they would also be useful for carrying other goods. The Dhoolie, on account of the long chains swinging too much for a jungle path, was unable to be used.

ABSTRACT of Diseases in the 1st Battalion 10th Regiment.

	Diseases.	1874.			1875.														
		December.			January.			February.			March.			April.			May.		
		Strength, 81.			Strength, 40.			Strength, 40.			Strength, 40.			Strength, 37.			Strength, 34.		
		Admitted.	Died.	Average Weekly Remaining.	Admitted.	Died.	Average Weekly Remaining.	Admitted.	Died.	Average Weekly Remaining.	Admitted.	Died.	Average Weekly Remaining.	Admitted.	Died.	Average Weekly Remaining.	Admitted.	Died.	Average Weekly Remaining.
1	Intermittent and remittent fever	1	..	0·4	1	..	0·4	..	..	..	1	..	0·5	..	..	..	..	..	..
2	Febricula	..	..	..	1	..	0·4	..	..	..	..	..	..	..	..	..	1	..	0·3
3	Digestive	..	..	..	2	..	0·2	1	..	0·8	..	..	..	2	..	0·2	4	..	0·8
4	Gonorrhœa	1	..	0·4	..	..	0·2	..	..	..	1	..	..	..	..	..	..	..	..
5	Syphilis, primary..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	0·2	..	..	0·5
6	Skin diseases	..	..	..	..	..	..	..	..	..	1	..	0·3	1	..	0·3	..	..	..
7	Ear diseases	..	..	..	..	..	..	..	..	..	2	..	1·0	..	..	..	..	..	..
8	Wounds	1	..	0·4	..	..	0·2	1	..	0·5	1	..	0·3	..	..	..	..	..	..
9	Gunshot wounds	..	..	..	..	..	..	1	..	1·0	..	..	1·0	..	..	0·6	..	..	..
10	Ulcer	..	..	..	..	..	..	2	..	1·2	..	..	0·5	3	..	5·0	1	..	0·3
11	Contusion	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	0·3
12	Sprain of foot	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	0·3
13	Poison	..	..	..	..	..	..	..	..	..	1	..	0·3	..	..	..	..	..	..
	Total	3	..	1·2	4	..	1·4	5	..	3·5	7	..	3·9	7	..	6·3	8	..	2·5

Total Admissions, 34.

Diseases.

This abstract, though not strictly according to classification, gives a fair idea of the diseases suffered by the men of the 1st Battalion 10th Regiment :—

1. One was a case of remittent fever occurring in a young man aged 21. He was transferred to Singapore on 21st December, convalescent. The other two were cases of simple ague.

2. Of the digestive organs, most were simple diarrhœa; one was congestion of the liver ; a good many of those men with diarrhœa have very long service in the Tropics, and, as is well known, diarrhœa is often brought on by simple irregularity of diet, afterwards assuming tropical characters. Many were readmissions.

3. The case of gonorrhœa occurring in December, was simply the result of a former attack, probably renewed by the unusual exertion he was called upon to perform. This being mild, I treated locally ; the other was transferred to Singapore.

4. A mild case of a soft intra-urethral sore.

5. Two cases of tinea tonsurans, a very common disease in the China Command.

6. Two cases of inflammation of the membrana tympani, a very common disease in the Straits Settlements, brought on by sleeping in a draught. Some think it is due to washing in bad water, sea-air, &c.; but, after thorough investigation, I find the cold draught of air the cause -it is very liable to recurrence. Washing out the ear with warm water and dropping in a little vinum opii, to be kept in by means of cotton wool, is a certain remedy.

7. Two were scalp—one from a blow while on picquet, the other from a fall ; the third a cut in the hand from a broken plate.

8. The case of gunshot wound was accidental, happening to a man while out shooting with a fowling-piece—(a number of which we took from the Chinese) ; the shot entered the inner side of the arm. The man was transferred to Singapore, where he is doing well.

9. The diseases under this head happened from different causes—two from an abrasion, one from a boil, one from wearing boots without socks, one from wearing tight new boots on guard, &c.

10. A bruise on the shoulder from a fall.

Royal Artillery.

In the month of February, one officer was attacked with dysentery, at first mild, but afterwards of a severe type—great abdominal pain, tenesmus and irritability of the stomach being leading features. I advised this officer most strongly to leave for Singapore without delay, as the abode in a verandah, with only salt and preserved meats and no bread, formed by no means favourable surroundings in sickness of his description. He delayed from time to time, as he was then Acting Resident, till the rigors of liver abscess set in, when he left for Singapore, from whence he was afterwards invalided to England.

ABSTRACT of Diseases in the Royal Artillery.

	Diseases.	1874.			1875.														
		December.			January.			February.			March.			April.			May.		
		Strength, 25.			Strength, 10.			Strength, 10.			Strength, 10.			Strength, 10.			Strength, 7.		
		Admitted.	Died.	Average Weekly Remaining.	Admitted.	Died.	Average Weekly Remaining.	Admitted.	Died.	Average Weekly Remaining.	Admitted.	Died.	Average Weekly Remaining.	Admitted.	Died.	Average Weekly Remaining.	Admitted.	Died.	Average Weekly Remaining.
1	Gonorrhœa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
2	Conjunctivitis	..	..	..	..	..	..	..	..	..	1	..	0·3	..	..	..	..	..	..
3	Ulcer	..	..	..	1	..	0·3	2	..	0·8	..	..	0·8	..	..	..	2	..	0·5
4	Boils	..	..	..	..	..	..	..	..	..	1	..	0·5	1	..	0·3	..	..	..
5	Contusion..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	0·3	..	..	..
6	Wound	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
	Total	..	..	..	1	..	0·3	3	..	0·8	2	..	1·6	2	..	0·6	3	..	0·5

Total Admissions, 11.

Diseases.

1. This case of gonorrhœa had the usual cause—the Chinese villages in this part of the world not being behind the time in civilization.
2. A case of simple conjunctivitis from glare.
3. Of the ulcers, one resulted from wearing boots without socks (all the socks being worn out), one from an abrasion, one from a boil. The men being fond of walking about the barracks in bare feet was a great cause of this disease, the ground not being cleared thoroughly.
4. From climate, causing a readmission.
5. Due to a fall while jumping.
6. A fall.

Geography.

Sunghie-Ujong—meaning the end of a river—is an inland province of the Malayan Peninsula, north-west of Malacca, from which it is distant about 60 miles as the crow flies. The Sunghie river, arising in the territory and running a devious course of about 50 miles, connects it with the sea. A jungle-path extends from Lookut—a small village about three miles up a river of the same name, to Sunghie-Ujong; also a path from Permattan-Passir; numerous paths lead to the surrounding native states. The Tunku-Klana, who is the ruler, has very faint ideas of his boundaries. About the centre of the province exists a large clearing about 6 miles long by 3 broad; even here, in isolated patches, jungle of a low description abounds. This is the seat of government—the Klana residing at Ampangon, where there is a large native village. Seramban and Rassa are Chinese villages—the space between the three representing a triangle—a village being at each angle. The Malays also live throughout the country in small clearings, where a few houses together are called Tâmpat.

Population.

The population is estimated at about 2,000 Malays and 11,000 Chinese; hills covered with trees to the very top almost surround this central spot. The beautiful range of the Rumbow Mountains is to the east and north about 10 miles distant;

Vegetable production.

all kind of vegetation is abundant; in the places bared of jungle, the high lalang grass (*Andropayan caricosum*) flourishes; only small quantities of padi, or rice, are cultivated; the Chinese grow the sweet potato (*Convolvulus batatas*), as also different species of yams, sugar-cane, &c. The jungle abounds in various kinds of tropical trees—the daroo, tampenes, kamooning, marabon, &c.; the most useful of the smaller growth are the bamboo, the attap palm, the rattan creeper (*Calamus ratavy*); the fruit trees are the cocoa-nut, the banana (*Musa Paradisiaca*), the durian, mangoosteen, pineapple, &c.

Soil.

The soil contains the principal wealth of the place in the shape of tin, which is plentifully found in the alluvial earth by scraping and washing. This forms the attraction for the numerous Chinese. Small quantities of gold are occasionally found.

Climate.

The climate differs but little from that of Singapore or Malacca; perhaps on account of its inland position the two seasons of wet and dry are more marked.

Average temperature.

The average daily temperature throughout the year would be about 80° F. The nights are comparatively cool—the extensive vegetation preventing the soil from absorbing the heat from the sun's rays during the day. November and December are the wet months; the north-east monsoon prevailing at that time, it was certainly very wet when we were marching, the sun not being visible for six days. The sun is very powerful in March, May, and June. On the whole, the climate is a beautiful one for the indolent natives; but for the thin-skulled, brain-worked, beer-loving European, the Mata-ari (eye of the day), as the Malays call the sun, is much too near a neighbour.

Animals, &c.

There is no doubt whatever that the dense jungle affords homes for numerous kinds of wild animals. The tigers abound; a few rhinoceros. Others are the deer, the civet cat, apes, monkeys, &c. Among reptiles, the iguana and turtle are indigenous. Of snakes, the boaconstrictor, the cobras, and other poisonous and harmless kinds abound. The alligators infest the mouths of the rivers.

Character of Malay.

The Malay is in stature small, dark-complexioned, and generally of a forbidding cast of countenance; he is about as useless a man as ever lived; has wives in proportion to his means; chews siri all day long; lives upon rice and fruit, and tries to extort money from the hard-working Celestial.

Diseases.

The diseases from which he suffers are few—malarial fevers, diarrhœa, Dysentery.

dysentery, ophthalmia, and ulcers. Their Tukang-Ubat, or doctors, judging from results, are by no means ornaments to the noble profession to which they aspire; men worn to a thread by ague, having consumed large quantities of their medicine, come to me and get immediate relief from a little quinine. The filth forced down the throats of dysentery cases causes an immediate change—for the worse. In a village one man died, and two others were supposed to be following his example. I was asked to see them. I found the two men to be suffering from dysentery; ordered their food to be changed to bread, chicken soup, and weak tea, instead of rice and curry and muddy river-water. I gave each man a bolus of 30 gr. ipecac. and a mixture of quinine, ii. gr. catechu, and ii. gr. doses of ipecac. every four hours; hot fomentations and flannel to the abdomen; made them change their rooms; in two or three days the motions were reduced from 30 to 5; blood disappeared. They were well in 10 days. I then made the people of the village change their water supply. No other case has since been reported from that village.

Ophthalmia.

Ophthalmia is almost confined to those living in the larger villages; the glare from the bare soil and walls is the principal cause; it is pitiable to see the number of people whose corneas have been riddled with ulcers—staphyloma and blindness resulting. One or two men came to me with the disease in its early stage; bathing the eyes in warm water, drops from a solution of ii. gr. cupri. sulph. to ℥i. of water, remaining indoors, &c., had the happiest results. My first patient was very much pleased: on going away he asked me for more medicine. I said, "Your eyes are now well; no more is required." "Yes, sir," he said, "but I have plenty friends, and I should like to keep that medicine in the house." I was afterwards besieged by a lot of poor blind people, who wanted me to restore their sight. Certainly the cleanliness and the mild astringent surprised the natives in their results. The ulcers generally occur on the legs from poor nourishment. I should say it is next to impossible to cure them without proper dietetic treatment, and I certainly gained no reputation whatever in that direction. Small-pox has occasionally committed extensive ravages, whole households being carried off. I have seen exactly the same thing occur outside the boundary of our Malacca territory; but never within, where the blessings of vaccination are extended to the poor.

Ulcers.

Case.

Badoola Hamman, of uncertain age—perhaps 30, a thin wiry-looking individual, remembers to have been troubled with little sickness till the morning of the 10th January, when he received three Snider bullet wounds. In the first wound, the bullet passed from behind, through the deltoid muscle, downwards, forwards, and inwards, making its exit about two inches from entrance and passing about one inch below the acromion process. The second bullet entered the fleshy gluteal region on the right side, four inches below and behind the crest of the ilium, and two inches behind the great trochanter, having tunnelled under the skin from right to left, with a slightly upward direction, for about four inches and a-half; the bullet made its wound of exit three and a-half inches long, two broad, and one and a-half deep. The third bullet entered the outer side of the thigh, two inches above and behind the right-angle of the patella, and lodged. On placing the man in the two positions in which he received the wounds, I found that the shoulder-joint was uninjured—that the femur was not broken. I could not detect this bullet (No. 3) with my finger or probe. I concluded that the bullet entered the bone and remained there, and I determined to wait. I had the man well fed, prescribed morphia to relieve pain, thereby causing sleep, applied water-dressing to all the wounds, freed them from discharges twice daily, using weak carbolic water-lotion when there was any offensive smell. This continued for several weeks, the man being in a most wretched condition. The shoulder and gluteal wounds were healing nicely. The thigh-wound gave out an offensive discharge from its canal. On several days I spent a long time manipulating and probing this sinus in all directionst watching where the discharge seemed to come from; but was unable to discover the bullet till the morning of the 10th March, two months from time of admission. The swelling and inflammation of the femur having subsided I discovered the locality of the bullet, slightly moveable on the bone. That afternoon, with the assistance of my orderly, I administered chloroform and extracted it from its position, about four inches higher, and slightly more posterior than the original entrance orifice; the sinus soon ceased to discharge, and the man walked a mile and a-half to see me in three weeks.

The points of interest in this case are—first, the enormous amount of loss of tissue in the several wounds recovered from; secondly, the direction of the thigh-wound bullet, and its not making its exit, though on receipt the man was not more distant than 60 yards. On examining the bullet, and taking into account the track of the sinus, I concluded that the ball must have ricochet before striking the thigh; but what stopped the bullet I cannot understand, as a ricochet bullet loses none of its force.

[The Medical Reports on other portions of the military force engaged in the Malayan Expedition were not received in time for publication in the present volume.]

APPENDIX No. V.

EXTRACT FROM MEDICO-TOPOGRAPHICAL REPORT FOR NOWGONG, BUNDELCUND.

By Surgeon J. B. Hannah, M.D., Army Medical Department.

"The diseases from which the largest number of admissions take place in Nowgong are fever, principally of an intermittent form. This, in the case of the Detachment 63rd Regiment, is most severe in September, October, and November. December, also, has a large number of cases, but less than the other three months. The cause of this fever during the three months after the rains is probably owing to the power the "black soil" has of absorbing and retaining moisture for a considerable period. I have examined the records for the past four years, two of which the 106th Regiment occupied the barracks in the old cantonments, and the other two the 63rd Regiment occupied these new barracks. The first are built on the "laterate" soil, and, as I mentioned, these new barracks are built on the black cotton soil. No comparison exists as regards the buildings, as the former are merely converted stables, and the latter as fine barracks as it is possible to build, with the men sleeping on the upper stories. The number of admissions into hospital, however, taken monthly, show a very marked difference in favour of the old site as regards fevers. The average strength of the two detachments has been so nearly alike that it may be left out of consideration. In 1872 the 106th Regiment had, in September (the month when the rains begin to lessen) nine admissions from "fever" (I use that word to signify only ague and mild remittent), the 63rd Regiment 35 admissions. In October (a month in this part of India tolerably dry) the 106th Regiment had seven admissions, the Detachment 63rd Regiment no less than 53. In November, the admissions from the 106th Regiment were again seven, the Detachment 63rd Regiment 33. In December, they were 14 and 22 respectively. I can only think this enormous difference must be due to the surrounding soil. In the firm laterate soil of the old cantonments the water drains away very rapidly after a rainfall, but in these new barracks it remains soft and moist for days. In every other respect the Detachment 63rd Regiment was advantageously placed, as the 106th Regiment had a number of fever cases sent from Jhansi for change, whereas the 63rd Regiment had none. In the former detachment, too, every man was either in hospital or at duty, but in the latter, on account of want of hospital space, it was impossible to keep every ague case in, and many men were under treatment several days without being shown in the returns.

In the Artillery barracks, on the same soil, and immediately adjoining these blocks, the same thing existed; almost every man was under treatment during those months with ague, and the officers in medical charge administered quinine to a large number daily.

The same difference in the number of admissions from fever is observable in the second year of each detachment, and although the total number of admissions in the 63rd hospital is less, it is, for 10 months in the year, much higher than the 106th; and leaving out the last two months, November and December, from the table of the 63rd Regiment, there are 120 admissions to 83 for the 106th, and the average strength of that detachment was seven more than the 63rd. The year 1875 was considered exceptionally hot, and the rain was late in setting in; but, on the other hand, it was heavier, so that it may be fairly inferred there was no great difference. In 1874–75, the same month (October) shows the highest number of admissions, but the men of the 106th

Regiment appear to have felt the winter months more. This may be accounted for by their barracks being very cold, with large trees close to them on every side; whereas the new barracks are entirely devoid of trees near them, and the men of the 106th Regiment were also older soldiers, who had been much longer in the country, and were consequently less able to resist the high diurnal range of 30° and 31° F. of January and February. A few degrees more cold, and I have always found half-a-dozen men waiting for treatment the following morning at the hospital with ague, especially if they had suffered from it before, and contracted it during the rains."

TABLE of admissions from fevers in the 106th Regiment at Nowgong, Bundelcund, for the years 1872 and 1873.

Old Barracks, Converted Stables.

Month.	1872. Average Strength, 164. Admitted.	1873. Average Strength, 162. Admitted.	Remarks.
January	15	11	
February	16	15	
March	12	6	
April	9	5	
May..	12	2	
June	9	4	
July..	10	3	
August	9	10	
September	9	10	
October	7	17	
November	7	Marched.	
December	14	—	
Total	129	83	

TABLE of admissions from fevers in the 63rd Regiment, at Nowgong, Bundelcund, for the years 1874 and 1875.

New "Standard Plan" Barracks.

Month.	1874. Average Strength, 170. Admitted.	1875. Average Strength, 155. Admitted.	Remarks.
January	1	12	
February	1	4	
March	6	1	
April	15	3	
May..	12	7	
June	3	12	
July..	3	20	
August	20	6	
September	35	24	
October	53	31	
November	33	14	
December	22	10	
Total	204	144	

APPENDIX No. VI.

ANDAMAN ISLANDS.

(The following observations are extracted from the "Medico-Topographical Report of Port Blair and the Andaman Islands, by Surgeon-Major HODDER, M.B., Army Medical Department. Some Notes on these Islands, by Surgeon DOUGLAS, V.C., M.D., will be found in the Volume of Reports for 1873.)

Animals.

WITH the exception of a considerable variety of birds, there is a great deficiency of animal life; wild pigs and wild cats are nearly all that are known or believed to exist. The swallow which makes the edible nest, and a great variety of wild pigeons, are found. Insects, lizards, and snakes are common.

The Aborigines.

Owing to reports brought by mariners that the inhabitants of these islands are cannibals, and the fact that up to a few years ago they murdered any stranger who was unfortunate enough to fall into their hands, the Andamanese have caused much curiosity and attention. They have been reported deformed and hideous in appearance, but in these particulars accounts have been somewhat exaggerated. In height they vary from 4 ft. 9 in. to 5 ft. 1 in.; they are extremely black—more so than the African negro, and some of them have a dull leaden hue, like that of a black-leaded stove. They are not deformed; but seem to be very well made, except as to height, and they are supple and active when they wish. They indignantly deny being cannibals, and ask why, when they can get plenty of food, they should eat men.

Origin doubtful.

Their origin has puzzled ethnologists, but they certainly have many characteristics of the African—namely, scanty woolly hair and flat features, though by no means so flat as the negro; the thick lips and long heel of the latter are much less prominent. In appearance they resemble the Seedee boys of the East Coast of Africa more than any other race I have seen; they are fond of dancing, and have a strong sense of the ridiculous, which is so well marked in the African. They are exceedingly passionate, and aroused by trifles, and their appearance is then diabolical. This great irritability is manifested as much between themselves as if the offence comes from a different race.

Characteristics.

Number.

Their number is estimated at about 5,000; but as no means of obtaining correct information on this point presents itself, it is of course only a guess. Those living near the settlements—estimated at 400—are divided into tribes, seldom above 30 strong; each tribe has its own territory which, when interfered with by others, used to cause war.

Huts.

Their dwellings are most primitive, and are merely composed of palm leaves and branches loosely put together. They make no permanent huts, as do the natives of the Little Andamans and Nicobars.

No religion.

They do not appear to entertain any religious belief; but believe the spirit of a departed relative has power to do them harm; they consequently take means to appease it, such as leaving water near the grave for the spirit to drink if thirsty, or placing the body on a raised platform, and lighting a fire near.

Customs.

During late years what are called "homes" have been established for the Andamanese; they are large bamboo sheds in which those people who wish to come in from the jungles put up; the people come and go at will. On the first establishment of the penal settlement here, and for some years after, the natives caused much trouble by murdering the convicts, and taking their irons for arrow-heads, whilst they were at work clearing the jungle. They used to come even into the different stations and rob or murder. Gradually those near found it to their advantage to cease these depredations, and now—probably within a radius of 10 or 15 miles from the Settlement—none of the tribes

No clothing.

Ornaments.

Fondness for smoking.

would be likely to attack stragglers without reason, though it is highly probable that it would be by no means safe for Europeans or others to go beyond this except in sufficient numbers, and with arms for protection. They realize the idea I had formed of true savages, and would seem to be almost untameable, for, notwithstanding all the advantages—such as getting food without trouble, clothing, and shelter—they receive in this settlement, all those on Ross Island ran away to the jungle only a few months ago, but were given up by the chief of their tribe; probably some of them had been a long time in the settlement. In the jungles, the men are absolutely naked; but the women twist fibres up, into ropes, which they allow to hang down in front and behind to half-way down the thigh; this is their only covering. Those located in the settlement are sometimes induced to wear a pair of drawers, which they immediately throw off when they proceed to fish or hunt. They cover their bodies with a red earth, and the mode in which it is applied shews whether it is put on as ornament, to prevent sickness, or as a sign of mourning. As ornaments, they wear strings of their ancestors' bones round their necks, or a skull slung in a basket over their backs. At an early age the elders begin to tattoo the bodies of the young ones; the operation is commenced as soon as the boys begin to swim, and the process is carried on at intervals till adult age, by which time the body is tolerably well covered with small straight scars; near the settlements the operation is now done with a piece of glass, and with this they also shave their heads, with the exception of a narrow streak from the crown to the nape of the neck. These operations were probably done with flint or stone previous to the advent of bottles into their domains. They rarely have eyebrows, beard, moustache, or whiskers, and few eyelashes. They are very fond of liquor and smoking; and it is said that it was by means of the latter that a hold was got on those close to the settlement—they took so to it that a want (which they had not before) was created, and they came in for tobacco.

Marriage.

Great mortality amongst children.

As soon as a man can support a wife he marries. The youth who is a candidate eats a certain kind of ray-fish which gives him the appellation of "Goo-mo," or "bachelor desirous of marrying." The girls who are marriageable wear a certain kind of flower, so that some of the difficulties which occur in civilized life are avoided. The ceremony consists in the pair about to be married sitting down apart from the others, and staring at one another in silence; towards evening, the girl's father or guardian joins the hands of the pair, and they then retire, and live alone in the jungle for some days. There appears to be great mortality amongst children, few parents rear more than one or two, and three brought up is considered a wonderful thing amongst them.

Race short-lived; and diseases.

The Andamanese, so far as known, are short-lived, and not healthy; few appear to pass 40 years of age; they suffer from fever, bowel complaints, and lung diseases, it is said; and they are easily affected by the sun and cold winds. They know no remedy but painting the body with red earth.

Intelligence.

They are by no means deficient in intelligence, and many of them have picked up Hindustani, so as to speak it well.

Language.

Their own language, I understand, consists of few words, and these sound harsh and explosive, and consists principally of monosyllables.

Burial ceremonies.

When a man dies, he is quickly buried, and the tribe leaves its place for about a month. They cord the corpse with fibre, and place it in a half-sitting attitude in a shallow grave, about two feet deep; the face is placed to the rising sun. Before filling in the grave, each of the others takes a last look, and gently blows on the face and forehead of the corpse. At certain periods, varying from four to six months, the nearest of kin to deceased returns and takes away some of the bones.

Sports and amusements.

They shoot fish with extraordinary accuracy, with bows and arrows. I have seen them hit a small fish—at a foot or more deep—with perfect aim; they also spear fish, with a spear attached to a long bamboo; they poise the pole from a height, and then jump with it. They shoot the wild pigs with arrows, and catch turtle. Their amusements appear to be few—dancing, a monotonous song, and the music of a rough skin drum, which they play by stamping on it with their feet, appear to be the chief.

Articles they construct.

Canoes, bows and arrows, spears, nets, &c., are all they make, and these are necessary to supply them with their daily food. They make no provision of food for anticipated hard times.

Little Andaman Island.

In April 1875 the Superintendent of these Settlements, on his tour to the Nicobars, visited the Little Andaman on the way, and, having obtained leave of absence, I accompanied him. The object of the visit was to try and make friends with the natives, who are the most untameable and unfriendly savages in the whole chain of islands. As we penetrated further into the island, by means of a creek, than anyone is known to have done, it may not be out of place to say a very few words here on what we saw. The island is distant from Port Blair about 60 miles to the south, between lat. 10° 25′ and 10° 50′ north and long. 92° 26′ and 92° 50′ east; it is 28 miles long and about 20 broad. The whole coast line which we saw (a considerable portion) is low, with sandy shore; but in some places low rocks rise abruptly to a height of 20 or 30 feet; a heavy surf, even in calm weather, appears constantly to beat the shore, and this appears to have led to many of the murders committed by the natives on strangers, by either upsetting the boats near the shore whilst attempting to land, or by preventing those who had landed getting off when attacked by the natives. A low range of hills occupies a portion of the centre of the island.

Our party entered a creek at the north-western part of the island, the mouth of which is about one-eighth of a mile wide, and spent most of the day exploring this creek and its branches; its course appears to be nearly north, and it apparently comes from the low hills seen in the distance; it is fringed with mangrove trees to the water's edge, and the scenery consequently is very monotonous. We saw nothing of the inhabitants this day, but found a few of their log canoes tied to the trees on the bank. We went inland a distance of seven or eight miles.

Animal life.

No animals were seen, but a few birds; and up one branch of the creek we disturbed an enormous number of large bats (flying foxes), which flew in thousands over our heads, screeching, and darting about quite bewildered.

Inhabitants.

The natives of this island have always had a character for ferocity greater than those of any of the other islands, and they appear to deserve it. Both their northern neighbours and those of the Nicobars hold them in dread. Numerous instances are known of most cold-blooded murders committed by them on people who have landed in ignorance of their character, or who have been shipwrecked on the island; and it is highly probable that many of the crews of Burmese junks cruising about for cocoa-nuts have fallen victims to these savages, by innocently landing, or through their vessels being wrecked and nothing ever again been heard of them. Last year a small expedition from Port Blair was sent to punish them for an offence of this kind; a small party of Madras Sepoys landed where the murders were committed, and, notwithstanding their firearms, the natives fought with their bows and arrows from the edge of the jungle, and succeeded in wounding two of the soldiers. For the sake of those unfortunate enough to be wrecked amongst them, therefore, it would be highly desirable to have the natives friendly, for now, unless well armed, it would be almost certain death to land. So presents of pigs, cloth, and iron were left on the shore for them. A party of about 20 of the Port Blair Andamanese, from the "homes," were brought, and in the morning we again landed. The Andamanese were sent into the jungle to see if they could find any natives and make friends. After penetrating some distance, they came on a party, and were immediately attacked. They had been told not to fight, unless they could not avoid it; but were at length obliged, in self defence, to use their bows, and mortally wounded one of the natives; and so great is the strength of their bows that a large blunt barbed arrow completely pierced the thigh, wounding the profunda femoris. We afterwards got the wounded man alive, but whilst taking him on board the steamer he died. The skeleton has been cleaned, and sent by General Stewart, C.B., the Superintendent, to his uncle Sir Ranald Martin, I believe, to be presented to one of the museums in London. The natives are evidently the same race as those of the Great Andamans, though neither understands a word of the language spoken by the other. More attempts were made to conciliate them by presents of cocoa-nuts thrown into the water, and also a pig, which swam towards shore, and, when within range, was immediately shot with arrows; but all attempts failed; even after accepting the presents, they waded into the water, and attempted to get a flight of arrows into the boats. Many of them could have been killed, as they were within 80 yards; but as any violence would have made matters worse, of course they were not fired on, as it was not necessary in self-defence.

Huts.

They build huts of much superior description to their northern neighbours, and they used to build them on the sandy beach, but, as they found their huts proved a guide to expeditions sent to punish them for misdeeds, they removed them, and now, I believe, no houses are to be seen anywhere from the sea.

Nicobars.

From the Little Andaman, a distance of about 50 miles south brought us to Car Nicobar, where the total difference in the appearance of the island and the inhabitants is strange; the latter are brown-skinned, straight-haired, inoffensive, and even cowardly.

Treatment of leprosy by the gurjon oil.

Whilst speaking of the diseases of convicts, I wish to mention two novel modes of treatment which, through the kindness of Dr. Dougall, Madras Medical Service, Senior Medical Officer, Port Blair and Nicobars, I have been able to see, and, though not connected with the European detachment, I think should not be omitted in a report of this kind. The first relates to the treatment of leprosy by gurjon oil—the oleo resin obtained from the *dipterocarpus levis*, which grows abundantly all over these islands and in Burmah. When Dr. Dougall first visited the Leper Ward in March 1873, he found 24 patients, many in a wretched state with ulcers, portions of toes gone, anæsthesia, and all symptoms of leprosy clearly defined. He was much impressed with their wretched state, and, after thinking the matter over for a while, decided to use the gurjon oil—1 part to 10 of cocoa-nut oil, as an external application. This was begun on the 23rd May 1873 on all the lepers, their bodies being rubbed *all over* with the oil. In June, the proportions were altered to 1 to 5 repectively, and shortly after the gurjon oil was ordered internally also, in 6-drop doses, and gradually increased to 60 drops. In July, Dr. Dougall noticed that the lepers were improving in appearance, and gaining flesh, and the sores were beginning to heal. He then photographed them for future comparison. The first notable improvements were the healing of ulcers and gradual diminution of the anæsthesia. Not satisfied with the way the gurjon and cocoa-nut oils mixed, Dr. Dougall in trying various vehicles, hit on lime-water, and found that this and the gurjon oil, in the respective quantities of 3 and 1, and violently agitated, formed a substance like soft butter, and this he named "gurjon oil ointment"; it is smooth, and no pain follows its application to the healthy skin; at the same time, he made an emulsion of equal parts of the oil and lime-water, for internal use, in half-ounce doses, morning and evening,

Plan of treatment in detail.

The following is now the plan of treatment adopted. The lepers turn out at daylight, go to a stream, thoroughly wash themselves, using powdered earth as a detergent; they then return to their ward, receive their dose of emulsion, and then rub their *whole body* with the ointment; this process should continue two hours, and they are supervised during this time; no limit is placed on the quantity of ointment. At 3 P.M., the dose is repeated, and the rubbing process again gone through for two hours. Dr. Dougall attributes much good to the prolonged rubbing, not only on account of the physical exercise it entails, but the mental occupation it supplies. The emulsion acts as a laxative and diuretic. Twenty-four lepers have been treated, and in every case decided benefit has resulted; every ulcer has healed, and anæsthesia is markedly removed, and tubercles have softened and disappeared. Through the above treatment, men who for years have only dragged on a miserable existence, are now able and willing to work, and the healed sores show no tendency to reopen. No change whatever was made in their diet, which was and is bad.

Treatment of ulcers by dry earth.

The second mode of treatment referred to is that of ulcers by dry earth in a powdered state. Many of the convicts who work at the clearings are so saturated with and weakened by malaria, that the slightest scratch inflames and sloughs, leaving a large, foul-smelling, brown, unhealthy-looking ulcer. Dr. Dougall has treated such cases, with the best result, by means of dry earth. The ulcer is washed, and then the powdered earth, to the depth of about an inch is placed directly on it and a little over the margins; moist sheets of paper are placed over this, and a bandage over all, and left for 24 hours; the earth is then washed off, by means of a stream of water, and fresh earth applied. Some smarting results, as the earth seems to act as a stimulant as well as a deodorant. Very soon the brown surface disappears, and all smell is at once removed, and healthy granulations spring up. As soon as this takes place the ulcer is dressed with carbolic acid lotion, and heals quickly. Dr. Dougall has treated very large numbers in this manner, and is entirely satisfied with it. I might mention that whilst serving in the West Indies in 1868, I treated several large ulcers in the groin, the result of syphilis in soldiers of a West India regiment, with dry earth, and considered that the ulcers rapidly cleansed under the treatment. I had no opportunity of carrying it out except in a few cases.

APPENDI

Abstract of Results of Meteorological Observations taken a

Month.	Readings of the Barometer.			Temperature of the Air.							Mean Daily Readings			
							Mean						Hygrome	
	Mean reduced and corrected to 32°.	Highest reduced and corrected to 32°.	Lowest reduced and corrected to 32°.	Highest during Month.	Lowest during Month.	Range during Month.	Of all the highest.	Of all the lowest.	Daily Range.	Approximate Temperature.	Maximum in Sun's rays.	Minimum on Grass.	Dry Bulb.	Wet Bul
GIBRALTAR. Lat. 36° 6′ N														
January	30·103	30·384	29·808	67·0	48·0	19·0	61·3	53·3	8·0	57·3	77·2	51·4	57·7	53
February	30·136	30·442	29·833	71·6	45·0	26·6	64·7	53·7	11·0	59·2	98·9	49·6	58·7	53
March	30·119	30·303	29·924	75·2	48·0	27·2	63·4	54·4	9·0	58·9	100·4	51·8	58·7	53
April	29·985	30·243	29·552	76·2	49·4	26·8	68·3	57·9	10·4	63·1	116·1	54·8	62·9	56
May	29·920	30·145	29·740	80·6	57·0	23·6	73·2	62·6	10·6	67·9	128·1	58·8	67·0	59
June	29·999	30·146	29·813	87·0	63·0	24·0	80·5	69·3	11·2	74·9	135·3	64·5	73·2	65
July	29·962	30·128	29·843	92·0	68·8	23·2	84·8	73·0	11·8	78·9	139·4	70·6	78·4	70
August	29·951	30·096	29·811	91·0	70·2	20·8	84·6	72·8	11·8	78·7	134·2	70·6	78·2	71
September	29·989	30·230	29·823	88·0	67·0	21·0	81·6	70·6	11·0	76·1	126·7	66·5	74.6	64
October...	29·998	30·214	29·628	81·0	56·0	25·0	73·8	64·0	8·8	68·4	107·5	61·0	68·0	62
November	30·004	30·219	29·663	75·4	48·0	27·4	67·9	56·3	11·6	62·1	89·8	52·8	61·8	56
December	29·969	30·396	29·455	66·8	39·4	27·4	59·6	47·8	11·8	53·7	80·5	44·6	53·6	48
Yearly Sums, Means, and Totals ...	30·011	30·245	29·741	79·3	55·0	24·3	71·9	61·3	10·6	66·6	111·2	58·1	66·1	59
MALTA. Lat. 35° 55′ N														
January	29·472	30·293	29·415	65·4	43·0	22·4	59·3	52.1	7·2	55·7	104·8	45·8	57·0	52
February	29·964	30·397	29·631	65·0	41·4	23·6	57·8	49·4	8·4	53·6	113·0	43·4	55·3	50
March	29·969	30·225	29·513	65·6	42·0	23·6	58·5	49·3	9·2	53·9	117·5	41·0	55·7	50
April	29·794	30·093	29·257	73·0	51·0	22·0	66·1	56·3	9·8	61·2	125·8	...	63·7	58
May	29·793	30·178	29·449	83·0	53·8	29·2	69·0	59·6	9·4	64·3	126·5	...	66·3	60
June	29·920	30·198	29·770	97·8	59·8	38·0	83·4	71·2	12·2	77·3	137·3	...	79·4	74
July	29·866	30·017	29·668	91·6	68·2	23·4	84·6	74·0	10·6	79·3	139·1	...	81·6	73
August	29·850	29·991	29·658	93·0	68·8	24·2	83·1	72·1	11·0	77·6	137·3	...	79·6	72
September	29·969	30·179	29·760	85·2	69·0	16·2	81·2	72·0	9·[illegible]	76·6	139·2	...	79·0	71
October...	29·917	30·034	29·777	82·6	59·0	23·6	76·7	68 3	8·4	72·5	146·0	...	74·4	67
November*	...	...	...	73·0	51·0	22·0	66·6	57·8	8·8	62·2	114·9	...	64·2	58
December*	...	...	...	70·2	46·0	24·2	62·9	54·9	8·0	58·9	109·1	...	60·2	54
Yearly Sums, Means, and Totals ...	29·851	30·160	29·590	78·8	54·4	24·4	70·8	61·4	9·4	66·1	125·9	...	68·0	6
SCUTARI. Lat. 41° 0′ N														
January	30·107	30·316	29·508	56·2	25·8	30·4	46·2	34·8	11·4	40·5	70·8	27·8	41·5	3
February	30·015	30·481	29·651	62·0	15·6	46·4	46·0	32·6	13·4	39·3	76·6	26·4	40·4	37
March	30·033	30·478	29·690	64·6	17·0	47·6	47·0	33·6	13·4	40·3	88·6	27·0	41·3	3
April	29·901	30·168	29·546	79·8	33·6	46·2	65·6	45·2	20·4	55·4	113·5	36·5	58·4	5
May	29·784	30·042	29·444	88·0	43·0	45·0	71·0	52·4	18·6	61·7	118·9	43·8	64·2	5
June	29·912	30·203	29·643	93·4	51·8	41·6	80·8	58·6	22·2	69·7	128·2	50·2	73·3	6
July	29·848	30·086	29·580	93·6	59·0	34·6	86·4	62·6	23·8	74·5	136·4	54·3	79·0	6
August	29·803	30·035	29·687	93·0	57·6	35·4	88·4	65·0	23·4	76·7	139·2	56·9	81·1	6
September	30·010	30·252	29·858	89·8	55·6	34·2	83·0	59·0	24·0	71·0	132·1	51·6	75·6	6
October	30·033	30·337	29·729	83·0	46·0	37·0	72·3	54·9	17·4	63·6	109·4	47·5	66·7	6
November	29·854	30·240	29·973	75·0	38·0	37·0	60·7	48·9	11·8	54·8	82·7	42·0	56·8	5
December	29·854	30·145	29·477	68·4	42·0	26·4	59·6	48·2	11·4	53·9	84·0	40·7	54·9	5
Yearly Sums, Means, and Totals ...	29·929	30·232	29·565	78·9	40·4	38·5	67·2	49·6	17·6	58·4	106·7	42·1	61·1	5

Summary of Results of Meteorological Observation

Stations.														
Gibraltar ... 50 feet	30·011	30·442	29·445	92·0	39·4	52·6	71·9	61·3	10·6	66·6	111·2	58·1	66·1	5
Malta ... 111 „	29·851	30·397	29·257	97·8	42·0	55·8	70·8	61·4	9·4	66·1	125·9	...	68·0	6
Scutari ... 60 „	29·929	30·481	28·973	93·6	15·6	78·0	67·2	49·6	17·6	58·4	106·7	42·1	61·1	5

* Barometrical observations for 10 months only.

II.

ons in the Mediterranean, in the Year 1874.

5° 20′ W. Height above Sea 50 feet.

metrical Results from 's Tables (5th edition).				Atmospherical Conditions.													
In a Cubic Foot of Air.			Mean Weight of Cubic Foot of Air.	Number of Days for mean Direction of Wind.				Number of calm, or nearly calm, Days.	Calculated from Robinson's Anemometer.		Amount of Cloud 0—10.	Ozone Scale 0—10.	Number of Days on which Rain fell.	Amount of Rain fall.		Latitude.	Longitude.
Mean Weight of Vapour.	Mean additional Weight required for Saturation.	Mean Degree of Humidity.		North.	East.	South.	West.		Mean daily pressure of Wind.	Mean daily Horizontal Movement of the Air.				On the Ground.	Feet above the Ground.		
									lbs. per sq. foot	Miles				Inches	Inches	° ′	° ′
4·1	1·3	76·3	538·1	8·50	17·00	1·75	3·75	0·00	...	...	7·4	6·5	9	4·38	4·11	...	...
3·9	1·6	71·0	537·7	4·50	6·25	2·50	14·75	0·00	...	...	4·5	6·2	5	0·97	0·80	...	...
3·8	1·7	69·0	537·5	3·25	24·50	0·00	3·25	0·00	...	...	6·1	6·4	6	6·04	5·74	...	...
4·3	2·1	67·9	530·4	7·25	10·25	0·25	12·25	0·00	...	...	5·4	6·4	6	0·97	0·84	...	...
4·7	2·6	63·6	525·1	6·25	6·50	1·25	17·00	0·00	...	...	3·8	6·4	6	1·01	0·87	...	...
5·5	3·3	63·0	519·8	0·75	10·25	2·75	16·25	0·00	...	...	2·2	6·1	1	0·15	0·13	...	...
6·5	3·9	62·6	513·4	3·00	9·75	8·75	9·50	0·00	...	...	2·0	6·2	0	0·00	0·00	...	...
7·0	3·4	67·6	513·2	0·50	18·25	1·00	10·75	0·50	...	...	3·1	6·4	1	0·55	0·54	...	...
5·1	4·1	55·3	518·6	6·25	11·00	2·75	9·50	0·50	...	133·5	3·7	6·6	1	0·09	0·09	...	...
5·3	2·4	70·5	525·0	5·50	10·00	5·25	10·25	0·00	...	147·7	5·7	6·9	5	1·19	1·09	...	...
4·3	1·8	71·5	531·8	7·25	8·75	3·25	10·75	0·00	...	132·8	4·7	7·1	4	0·80	0·76	...	...
3·3	1·3	70·0	540·5	9·50	1·25	4·25	16·00	0·00	...	...	3·5	7·0	7	2·87	2·72	...	...
4·8	2·5	67·4	527·6	62·50	133·75	33·75	134·00	1·00	...	...	4·3	6·5	51	19·02	17·69	...	...

. 14° 30′ E. Height above Sea 111 feet.

Mean Weight of Vapour.	Mean additional Weight required for Saturation.	Mean Degree of Humidity.	Mean Weight of Cubic Foot of Air.	North.	East.	South.	West.	Number of calm, or nearly calm, Days.	Mean daily pressure of Wind.	Mean daily Horizontal Movement of the Air.	Amount of Cloud 0—10.	Ozone Scale 0—10.	Number of Days on which Rain fell.	On the Ground.	Feet above the Ground.	Latitude.	Longitude.
3·8	1·4	73·5	527·9	11·25	11·25	3·50	5·00	0·00	...	181·3	7·0	4·0	15	5·56	...	...	...
3·5	1·5	70·0	538·5	9·00	5·00	4·50	9·50	0·00	...	155·4	5·5	4·5	12	1·25	...	...	...
3·5	1·5	69·5	538·1	13·25	7·00	3·50	7·25	0·00	...	138·9	6·0	4·0	14	6·81	...	...	...
4·6	1·9	71·2	526·1	9·25	4·75	5·75	9.75	0·50	...	105·6	4·0	4·5	1	0·08	...	...	...
4·9	2·1	69·8	523·4	10·50	6·50	4·50	9·50	0·00	...	136·2	4·0	5·0	5	0·29	...	...	...
8·3	2·5	76·9	510·8	11·25	7·50	1·75	7·50	2·00	...	66·3	0·7	2·5	0	0·00	...	...	...
7·3	4·2	63·8	508·4	14·00	4·75	1·50	9·25	1·50	...	45·7	1·0	3·5	2	1·13	...	...	...
7·3	3·6	66·6	510·1	11·25	7·50	3·00	7·25	2·00	...	57·1	2·0	3·5	1	0·05	...	...	...
7·2	3·4	66·6	512·8	8·75	10·25	4·50	4·50	2·00	...	00·0	3·0	3·5	0	0·00	...	...	...
6·1	3·1	66·0	516·9	9·25	11·50	5·00	4·75	0·50	...	00·0	5·0	7·5	9	8·31	...	...	...
4·5	2·1	66·7	...	9·50	6·00	3·25	9·75	1·50	...	00·0	6·0	3·5	18	7·05	...	...	...
3·9	2·0	66·7	...	7·75	4·50	7·75	11·00	0·00	...	00·0	6·0	3·5	11	2·16	...	...	...
5·4	2·4	68·9	521·3	125·00	86·50	48·50	95·00	10·00	...	110·8*	4·2	4·1	88	32·69	...	...	...

. 29° 3′ E. Height above Sea 60 feet.

Mean Weight of Vapour.	Mean additional Weight required for Saturation.	Mean Degree of Humidity.	Mean Weight of Cubic Foot of Air.	North.	East.	South.	West.	Number of calm, or nearly calm, Days.	Mean daily pressure of Wind.	Mean daily Horizontal Movement of the Air.	Amount of Cloud 0—10.	Ozone Scale 0—10.	Number of Days on which Rain fell.	On the Ground.	Feet above the Ground.	Latitude.	Longitude.
2·5	0·6	82·5	556·8	12·00	10·50	3·50	4·00	1·00	...	206·0	6·0	6·3	15	2·42	2·01	...	...
2·3	0·7	78·4	556·2	8·50	11·50	5·00	3·00	0·00	...	210·2	7·2	6·9	17	4·25	2·59	...	...
2·3	0·7	76·9	555·6	11·25	6·25	8·50	4·00	0·50	...	202·3	6·9	7·5	16	4·22	1·13	...	...
3·7	1·8	66·9	534·0	9·25	5·50	8·25	4·50	1·50	...	158·3	4·4	5·6	4	1·50	1·39	...	...
4·4	2·2	65·8	525·5	5·50	2·75	11·50	10·75	0·50	...	154·2	5·1	5·7	10	1·63	1·39	...	...
5·9	2·9	66·8	518·0	10·50	6·75	7·00	5·25	0·00	...	124·3	3·1	5·0	4	0·75	0·70	...	...
6·2	4·4	57·2	511·3	15·00	11·50	1·75	2·75	0·00	...	154·2	2·2	4·6	1	0·08	0·08	...	...
6·0	5·4	52·4	508·5	13·00	10·75	3·25	3·50	0·00	...	152·4	2·3	4·7	0	0·00	0·00	...	...
5·3	4·2	55·3	517·7	14·50	12·00	1·25	1·25	0·50	...	161·0	2·6	5·6	2	0·23	0·22	...	...
4·8	2·4	65·7	527·2	14·25	8·50	6·00	2·25	0·00	...	143·3	5·5	6·1	10	1·50	1·36	...	...
4·0	1·2	75·8	534·7	8·25	7·00	9·00	4·75	1·00	...	187·8	7·2	6·1	19	3·75	3·24	...	...
3·8	1·1	75·8	536·7	3·00	7·25	13·25	7·00	0·50	...	232·5	6·1	5·7	15	4·44	3·74	...	...
4·3	2·3	68·3	531·8	125·00	100·25	78·25	53·00	5·50	...	173·9	4·9	5·8	113	24·77	17·85	...	...
				362 days only.													

n at Mediterranean Stations in 1874.

Mean Weight of Vapour.	Mean additional Weight required for Saturation.	Mean Degree of Humidity.	Mean Weight of Cubic Foot of Air.	North.	East.	South.	West.	Number of calm, or nearly calm, Days.	Mean daily pressure of Wind.	Mean daily Horizontal Movement of the Air.	Amount of Cloud 0—10.	Ozone Scale 0—10.	Number of Days on which Rain fell.	On the Ground.	Feet above the Ground.	Latitude.	Longitude.
4·8	2·5	67·4	527·6	62·50	133·75	33·75	134·00	1·00	...	...	4·3	6·5	51	19·02	...	36 6 N.	5 20 W.
5·4	2·4	68·9	521·3	125·00	86·50	48·50	95·00	10·00	...	110·8	4·2	4·1	88	32·69	...	35 53 ,,	14 30 E.
4·3	2·3	68·3	531·8	125·00	100·25	78·25	53·00	5·50	...	173·9	4·9	5·8	113	24·77	...	41 0 ,,	29 3 ,,

* 8 Months only.

Appen

Abstract of Results of Meteorological Observat

Halifax, Nova Scotia. Lat. 44° 3

Month.	Readings of the Barometer.			Temperature of the Air.							Mean Daily Readi		
							Mean						Hygr
	Mean reduced and corrected to 32°.	Highest reduced and corrected to 32°.	Lowest reduced and corrected to 32°.	Highest during Month.	Lowest during Month.	Range during Month.	Of all the highest.	Of all the lowest.	Daily Range.	Approximate Temperature.	Maximum in Sun's rays.	Minimum on Grass.	Dry Bulb.
January	29·945	30·570	29·270	52·3	−15·7	68·0	36·0	17·2	18·8	26·6	64·9	14·9	28·1
February	29·791	30·457	28·861	47·2	−12·3	59·5	29·8	10·0	19·8	19·9	75·9	8·7	22·2
March	29·607	30·252	28·835	57·1	−10·6	67·7	42·4	19·8	22·6	31·1	94·0	17·7	33·9
April	29·740	30·155	29·074	58·0	2·5	55·5	44·2	21·8	22·4	33·0	94·0	20·4	36·4
May	29·720	30·118	29·197	79·8	25·6	54·2	63·0	35·0	28·0	49·0	117·3	29·5	54·4
June	29·696	30·126	29·233	78·6	32·2	46·4	65·6	42·4	23·2	54·0	110·4	39·8	56·7
July	29·825	30·078	29·480	87·0	39·0	48·0	76·5	49·5	27·0	63·0	125·3	45·4	66·6
August	29·798	30·138	29·410	82·2	40·1	42·1	73·6	49·2	24·4	61·4	121·6	46·8	65·7
September	29·887	30·315	29·209	79·4	36·7	42·7	68·8	46·2	22·6	57·5	112·5	41·8	60·9
October	29·822	30·393	29·187	71·3	24·4	46·9	61·0	37·8	23·2	49·4	104·3	32·4	52·8
November	29·867	30·506	28·975	59·6	11·3	48·3	46·2	26·6	19·6	36·4	81·1	21·6	38·7
December	29·800	30·443	29·055	52·7	−6·4	59·1	36·0	16·6	19·4	26·3	62·7	15·6	28·0
Yearly Sums, Means, and Totals	29·791	30·296	29·149	67·1	13·9	53·2	53·6	31·0	22·6	42·3	97·0	27·9	45·4

Barbadoes. Lat. 13° 4

January	29·972	30·099	29·892	88·5	64·0	24·5	85·4	70·9	14·5	78·2	141·3	68·3	80·9
February	30·016	30·252	29·918	87·1	69·0	18·1	85·5	71·7	13·8	78·6	141·6	68·1	81·6
March	...	...	...	89·8	65·0	24·8	86·7	71·3	15·4	79·0	141·6	68·0	82·5
April	...	...	...	89·8	63·0	26·8	88·0	72·8	15·2	80·4	141·6	69·2	83·2
May	...	...	...	90·0	72·2	17·8	87·8	74·2	13·6	81·0	142·5	71·0	83·9
June	...	...	...	89·8	72·6	17·2	88·1	75·1	13·0	81·6	137·2	71·7	81·6
July	29·084	29·151	28·983	89·6	71·2	18·4	87·0	74·4	12·6	80·7	134·3	72·3	83·0
August	29·454	30·028	28·967	90·0	70·6	19·4	87·6	74·0	13·6	80·8	128·5	69·0	83·6
September*	29·885	30·007	29·859	90·0	71·2	18·8	88·0	74·2	13·8	81·1	129·7	72·0	79·6
October	...	...	...	90·0	70·6	19·4	88·0	74·0	14·0	81·0	129·5	71·5	83·4
November	...	...	...	90·0	67·0	23·0	88·0	72·8	15·2	80·4	122·7	70·0	83·2
December	...	...	...	88·4	67·0	21·4	86·8	71·8	15·0	79·3	121·9	67·8	81·9
Yearly Sums, Means, and Totals	...	...	...	89.4	68·6	20·8	87·2	73·1	14·1	80·1	134·4	69·9	82·4

Newcastle, Jamaica. Lat. 18° 62

January	...	...	...	84·0	33·0	51·0	75·7	52·1	23·6	63·9	135·8	47·7	69·1
February	...	...	...	80·0	42·0	38·0	75·0	46·2	28·8	60·6	138·9	44·3	69·3
March	...	...	...	86·0	39·0	47·0	80·1	46·1	34·0	63·1	143·3	46·6	71·2
April	...	...	...	88·0	38·0	50·0	80·6	47·6	33·0	64·1	139·0	49·7	72·3
May	...	...	...	89·0	46·0	43·0	79·0	49·8	29·2	64·4	142·3	50·2	72·2
June	...	...	...	...	...	...	82·8	50·8	32·0	66·8	135·9	49·1	75·0
July†	...	...	...	...	...	...	...	...	...	...	...	...	...
August†	...	...	...	...	...	...	...	...	...	...	...	...	...
September†	...	...	...	...	...	...	...	...	...	...	...	...	...
October	26·357	26·690	25·723	83·5	44·0	39·5	78·0	48·0	30·0	63·0	136·8	47·9	69·9
November	26·205	26·444	25·106	85·5	50·0	35·5	77·4	53·8	23·6	65·6	133·0	53·7	71·9
December	26·308	26·428	26·180	85·0	50·0	35·0	76·0	54·2	21·8	65·1	134·0	53·7	68·3
Yearly Sums, Means and Totals†	...	...	...	85·1	42·7	42·4	78·3 ‡	49·8 ‡	28·5 ‡	64·0 ‡	137·7 ‡	49·2 ‡	71·0 ‡

* From 1st to 18th Sept. only for Barometrical Observations. † No Instruments in July, August, or Sept

‡ The Means for 9 months only.

). VII.—*continued.*

ken at Stations in North America and the West Indies, in the Year 1874.

ng. 63° 36′ W. Height above Sea 175 feet.

Hygrometrical Results from Glaisher's Tables (5th edition).					Atmospherical Conditions.											
Mean elastic Force of Vapour.	In a Cubic Foot of Air.			Mean Weight of Cubic Foot of Air.	Number of Days for mean Direction of Wind.				Number of calm, or nearly calm, Days.	Calculated from Robinson's Anemometer.		Amount of Cloud 0—10.	Ozone Scale 0—10.	Number of Days on which Rain fell.	Amount of Rain fall.	
	Mean Weight of Vapour.	Mean additional Weight required for Saturation.	Mean Degree of Humidity.		North.	East.	South.	West.		Mean daily pressure of Wind.	Mean daily Horizontal Movement of the Air.				On the Ground.	Feet above the Ground.
										lbs. per sq. foot	Miles				Inches	Inches
·122	1·5	0·3	80·0	569·7	5·50	5·00	8·00	10·00	2·50	...	306·2	7·8	2·3	20	6·94	...
·075	0·9	0·5	63·0	574·0	6·00	3·00	5·25	12·25	1·50	...	333·9	6·1	2·8	18	8·40	...
·150	1·8	0·5	76·8	556·2	7·25	0·75	4·25	15·75	3·00	...	229·7	5·4	2·5	12	3·69	...
·170	1·9	0·6	78·8	555·8	2·75	2·50	7·00	14·75	3·00	...	285·6	6·7	3·5	18	5·36	...
·268	3·0	1·8	63·4	535·6	9·75	2·00	9·00	9·75	0·50	...	182·7	5·6	3·6	11	4·57	...
·355	4·0	1·2	76·8	531·8	6·75	6·75	10·25	6·25	0·00	...	217·8	7·1	2·3	19	8·34	...
·470	5·2	2·0	72·6	523·4	4·50	3·25	11·75	11·00	0·50	...	150·1	5·9	2·4	11	2·37	...
·472	5·2	1·7	75·0	523·8	5·75	1·75	12·50	11·00	0·00	...	190·3	6·0	2·4	14	3·63	...
·414	4·6	1·3	78·1	530·5	9·00	4·50	9·50	7·00	0·00	...	222·7	6·1	2·1	12	5·14	...
·304	3·4	1·1	76·6	538·7	11·00	1·25	5·00	13·75	0·00	...	...	6·4	1·5	8	2·46	...
·184	2·1	0·6	78·8	555·0	10·25	1·00	3·75	13·00	2·00	...	...	6·2	1·7	9	3·63	...
·122	1·5	0·3	80·0	566·8	11·25	1·75	4·25	11·25	2·50	...	...	7·0	1·8	18	6·23	...
·259	2·9	1·0	75·0	546·8	89·75	33·50	90·50	135·75	15·50	...	235·4 *	6·4	2·4	170	60·76	...

ng. 59° 40′ W. Height above Sea 25 feet.

·666	7·1	4·2	63·1	510·9	19·00	12·00	0·00	0·00	0·00	...	167·0	5·4	5·3	18	4·13	3·37
·633	6·8	4·8	57·8	511·2	13·00	14·00	0·00	0·00	1·00	...	203·4	5·1	4·6	10	0·61	0·47
·651	7·0	4·9	58·2	...	13·50	16·00	0·50	0·00	1·00	...	212·2	5·7	5·0	13	2·60	2·21
·666	7·1	5·0	58·2	...	14·50	15·00	0·50	0·00	0·00	...	249·8	6·5	5·4	14	1·85	1·57
·704	7·4	4·9	60·5	...	12·00	15·50	3·50	0·00	0·00	...	000·0	6·2	6·0	12	1·28	1·10
·756	8·1	3·5	70·4	...	15·25	14·25	0·00	0·00	0·50	...	271·4	7·2	5·7	18	5·52	5·07
·797	8·5	3·5	70·8	493·1	14·50	16·50	0·00	0·00	0·00	...	199·1	6·9	6·1	25	5·49	4·90
·810	8·6	3·7	70·4	498·8	9·50	15·50	5·00	0·00	1·00	...	150·3	6·9	6·0	21	7·26	6·54
·905	9·7	1·1	90·0	509·3	10·50	14·50	2·00	0·00	3·00	...	135·7	6·6	5·8	22	12·98	11·91
·813	8·6	3·5	71·2	...	7·00	17·50	5·50	0·00	1·00	...	135·5	6·7	7·1	25	6·72	5·77
·751	8·0	4·1	66·2	...	11·50	15·25	1·75	0·00	1·50	...	146·4	5·7	6·7	16	2·94	2·42
·678	7·3	4·4	62·9	...	15·50	15·50	0·00	0·00	0·00	...	209·8	5·9	6·3	18	2·51	1·69
·736	7·8	3·9	66·6	...	155·75	181·50	18·75	0·00	9·00	...	189·1	6·2	5·8	212	53·89	47·02

ng. 76° 42′ W. Height above Sea 3,800 feet.

·494	5·4	2·4	69·1	...	3·00	2·75	1·00	1·25	23·00	...	...	3·4	6·5	18	7·00	...
·489	5·3	2·5	67·8	...	0·50	0·50	0·00	0·00	27·00	...	...	3·1	6·0	8	4·95	...
·511	5·6	2·8	66·6	...	0·00	0·00	0·00	0·00	0·00	...	...	1·5	3·7	5	1·70	...
·557	6·0	2·6	69·8	...	0·00	0·00	0·00	0·00	30·00	...	...	1·3	4·7	3	3·78	...
·656	7·1	1·4	83·5	...	0·50	0·00	0·00	0·50	30·00	...	...	3·3	4·6	25	12·87	...
·783	8·5	0·9	90·0	...	0·00	0·00	0·00	0·00	0·00	...	...	2·5	...	14	5·38	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
·589	6·5	1·5	80·5	459·1	1·00	0·25	0·50	1·25	28·00	...	...	3·3	...	24	24·99	...
·563	6·1	2·4	71·4	454·7	2·50	1·75	0·50	1·75	23·50	...	...	2·4	...	13	14·21	...
·469	5·2	2·4	67·0	460·2	0·75	1·00	0·25	0·00	29·00	...	...	2·7	...	9	3·64	...
·568	6·2	2·1	73·9	...	8·25 †	6·25 †	2·25 †	4·75 †	190·50 †	...	...	2·6	5·1	119	78·52	...

* 9 months only. † 212 days only.

Appendi

Abstract of Results of Meteorological Observations taken a

UP PARK CAMP, JAMAICA. Lat. 17° 59′ N.

Month.	Readings of the Barometer.			Temperature of the Air.							Mean Daily Readings			
							Mean.						Hygrome	
	Mean reduced and corrected to 32°.	Highest reduced and corrected to 32°.	Lowest reduced and corrected to 32°.	Highest during Month.	Lowest during Month.	Range during Month.	Of all the highest.	Of all the lowest.	Daily Range.	Approximate Temperature.	Maximum in Sun's rays.	Minimum on grass.	Dry Bulb.	
January	29·752	30·397	29·383	99·0	58·5	40·5	95·6	62·0	33·6	78·8	141·6	57·2	82·4	7
February	29·776	30·308	29·583	100·1	59·3	40·3	96·4	62·6	33·8	79·5	142·0	57·3	83·3	7
March	29·891	30·088	29·637	100·5	59·3	41·3	96·2	62·0	34·2	79·1	144·0	57·0	84·5	7
April	29·778	29·839	29·643	98·3	60·3	38·0	95·4	64·0	31·4	79·7	142·2	...	84·2	7
May	29·736	29·843	29·647	97·4	62·1	35·3	95·4	64·0	31·4	79·7	142·6	...	82·7	7
June	29·761	29·838	26·683	97·3	61·2	36·1	95·5	64·3	31·2	79·7	141·2	...	84·4	7
July	29·786	29·836	29·675	...	...	...	...	...	...	...	...	...	...	
August*	...	...	...	...	...	...	...	...	...	...	...	...	...	
September*	...	...	...	...	...	...	...	...	...	...	...	...	...	
October...	29·646	29·831	29·522	95·0	68·0	27·0	91·7	72·3	19·4	82·0	144·2	67·2	...	
November	29·675	29·820	29·406	94·0	60·0	34·0	93·4	68·8	24·6	81·1	131·2	62·7	...	
December	29·722	29·834	29·711	93·8	64·8	29·0	93·6	65·4	28·2	79·5	147·0	...	...	
Yearly Sums, Means, and Totals† ...	29·752	29·972	29·589	97·2 ‡	61·5 ‡	35·7 ‡	94·8 ‡	65·0 ‡	29·8 ‡	79·9 ‡	141·8 ‡	60·3	83·6 §	7

NASSAU, BAHAMAS. Lat. 25° 5′ N

Month.	Mean reduced and corrected to 32°.	Highest reduced and corrected to 32°.	Lowest reduced and corrected to 32°.	Highest during Month.	Lowest during Month.	Range during Month.	Of all the highest.	Of all the lowest.	Daily Range.	Approximate Temperature.	Maximum in Sun's rays.	Minimum on grass.	Dry Bulb.	
January	30·158	30·408	29·965	87·0	48·3	38·7	79·2	60·4	18·8	69·8	122·9	...	71·6	6
February	30·117	30·268	29·975	86·7	57·2	29·5	83·6	62·6	21·0	73·1	139·2	...	75·5	7
March	30·085	30·249	29·891	89·0	55·0	34·0	84·8	63·6	21·2	74·2	146·9	66·4	77·9	7
April	30·092	30·305	29·947	89·5	62·0	27·5	86·8	67·2	19·6	77·0	144·3	70·4	80·0	7
May	30·006	30·124	29·855	90·5	60·3	30·2	87·7	66·3	21·4	77·0	140·8	69·4	80·5	7
June	30·063	30·177	29·924	96·3	65·5	30·8	92·2	70·0	22·2	81·1	146·1	73·5	84·2	7
July	30·065	30·179	29·892	95·0	64·5	30·5	92·4	70·0	22·4	81·2	143·1	73·1	83·4	7
August...	29·989	30·095	29·829	95·0	71·3	23·7	91·7	75·1	16·6	83·4	148·7	74·3	83·8	7
September	29·970	30·107	29·770	93·0	71·2	21·8	89·7	74·1	15·6	81·9	143·7	73·5	83·5	7
October	29·954	30·159	29·802	89·0	68·5	20·5	85·0	72·0	13·0	78·5	142·4	71·4	79·2	7
November	30·039	30·205	29·772	88·2	64·8	23·4	83·6	70·4	13·2	77·0	139·6	69·5	77·5	7
December	30·123	30·247	29·906	84·7	64·5	20·2	80·2	68·0	12·2	74·1	134·6	66·9	74·5	7
Yearly Sums, Means, and Totals ...	30·055	30·210	29·877	90·3	62·7	27·6	86·4	68·3	18·1	77·3	141·0	70·8 ‖	79·3	7

BERMUDA. Lat. 32° 17′ N

Month.	Mean reduced and corrected to 32°.	Highest reduced and corrected to 32°.	Lowest reduced and corrected to 32°.	Highest during Month.	Lowest during Month.	Range during Month.	Of all the highest.	Of all the lowest.	Daily Range.	Approximate Temperature.	Maximum in Sun's rays.	Minimum on grass.	Dry Bulb.	
January	30·063	30·356	29·550	76·8	42·6	34·2	70·0	56·8	13·2	63·4	115·4	47·9	64·7	5
February	29·990	30·298	29·376	80·6	44·0	36·6	70·9	57·1	13·8	64·0	115·8	50·0	65·3	6
March	29·891	30·278	29·322	78·4	46·5	31·9	69·9	55·9	14·0	62·9	123·9	48·3	65·1	5
April	30·030	30·272	29·677	82·4	47·0	35·4	76·1	60·9	15·2	68·5	141·1	52·3	71·5	6
May	29·965	30·228	29·617	86·8	56·2	30·6	79·2	63·2	16·0	71·2	146·1	53·5	74·5	6
June	29·987	30·154	29·790	90·4	64·0	26·4	84·6	68·6	16·0	76·6	150·0	60·7	80·0	7
July	30·047	30·202	29·767	95·2	69·0	26·2	89·8	71·4	18·4	80·6	158·9	63·1	84·9	7
August	29·957	30·123	29·815	91·6	69·4	22·2	88·0	72·8	15·2	80·4	148·7	66·0	83·4	7
September	29·910	30·070	29·626	90·6	64·0	26·6	83·3	69·9	13·4	76·6	139·7	60·6	78·9	7
October	29·898	30·162	29·350	87·0	62·6	24·4	80·1	68·3	11·8	74·2	127·7	57·9	76·3	7
November	29·969	30·224	29·680	81·2	55·0	26·2	75·1	62·9	12·2	69·0	124·5	53·3	71·0	6
December	30·012	30·221	29·637	76·4	45·2	31·2	70·6	54·2	16·4	62·4	112·0	47·0	66·2	6
early Sums, Means, and Totals ...	29·977	30·216	29·601	84·8	55·5	29·3	78·1	63·5	14·6	70·8	133·6	55·0	73·5	6

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* No returns for August or September, pending supply of new instruments. † Mean of 10 months.
‡ Mean of 9 months. § January to June only. ‖ For 10 months only.

No. VII.—*continued.*

Stations in North America and the West Indies, in the Year 1874.

Long. 76° 56′ W. Height above Sea 225 feet.

Hygrometrical Results from Glaisher's Tables (5th edition).						Atmospherical Conditions.											
		In a Cubic Foot of Air.				Number of Days for mean Direction of Wind.					Calculated from Robinson's Anemometer.					Amount of Rain fall.	
Mean Temperature of Dew Point.	Mean elastic Force of Vapour.	Mean Weight of Vapour.	Mean additional Weight required for Saturation.	Mean degree of Humidity.	Mean Weight of Cubic Foot of Air.	North.	East.	South.	West.	Number of calm, or nearly calm, Days.	Mean daily pressure of Wind.	Mean daily Horizontal Movement of the Air.	Amount of Cloud 0—10.	Ozone Scale 0—10.	Number of days on which Rain fell.	On the Ground.	Feet above the Ground.
												Miles.				Inches	Inches
68·0	·687	7·3	4·5	62·0	505·7	7·50	12·50	6·50	0·50	4·00	...	...	2·3	4·3	6	1·61	1·14
68·0	·684	7·3	4·8	59·5	505·2	3·00	12·25	10·00	0·25	2·50	...	...	2·4	4·2	4	0·65	0·44
68·3	·693	7·3	5·3	57·6	506·0	1·00	14·50	14·00	1·50	0·00	...	...	2·4	4·3	2	0·26	0·19
68·3	·692	7·3	5·2	58·2	504·4	1·50	13·50	14·50	0·00	0·00	...	...	2·7	4·4	3	1·20	...
69·0	·710	7·6	4·3	63·9	504·9	3·50	15·50	12·00	0·00	0·00	...	...	2·7	...	6	1·88	...
70·6	·750	8·0	4·6	63·2	503·6	1·50	15·00	13·50	0·00	0·00	...	...	2·9	4·0	6	3·40	2·54
...	...	...	...	...	...	1·50	15·00	13·50	1·00	0·00	...	...	2·3	3·7	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	4·50	15·50	11·00	0·00	0·00	...	...	3·0	..	18	13·63	...
...	...	...	...	...	...	12·50	12·75	4·50	0·25	0·00	...	...	3·3	4·9	13	6·57	4·17
...	...	...	...	...	...	17·25	12·00	1·75	0·00	0·00	...	...	2·2	4·7	4	2·58	...
68·7 *	70·2 *	7·4 *	4·8 *	60·7 *	504·9 *	53·75 †	138·50 †	101·25 †	3·50 †	6·50 †	...	...	2·6	4·3	62 ‡	31·78 ‡	...

Long. 77° 21′ W. Height above Sea 44 feet.

61·1	·545	5·6	2·5	69·0	523·9	13·00	12·50	2·00	3·50	0·00	...	159·7	5·5	5·4	5	9·69	8·45
66·6	·653	7·0	2·5	73·5	518·9	7·00	11·50	7·50	2·00	0·00	...	144·0	5·0	5·5	2	0·20	0·09
66·0	·642	6·9	3·4	67·0	515·8	9·00	10·50	6·50	5·00	0·00	...	147·0	5·1	5·7	4	0·16	0·10
67·5	·674	7·2	3·8	65·4	513·7	5·75	12·75	8·75	2·75	0·00	...	211·0	5·9	6·3	3	1·09	0·90
69·3	·716	7·6	3·5	68·2	511·5	10·25	13·75	5·50	1·50	0·00	...	172·9	5·1	5·0	11	6·33	4·78
73·2	·819	8·7	3·8	69·6	508·4	9·25	14·50	5·75	0·50	0·00	...	112·1	6·2	3·9	11	4·78	3·68
74·3	·845	9·0	3·2	74·0	509·0	8·75	13·00	7·00	2·25	0·00	...	110·1	6·5	3·4	21	8·09	6·18
75·8	·891	9·5	2·8	76·8	507·1	7·75	11·25	7·50	4·50	0·00	...	112·1	6·3	2·5	15	7·76	5·99
75·5	·882	9·4	2·8	76·8	507·1	9·25	12·25	5·25	2·25	1·00	...	105·0	6·5	3·1	22	5·05	4·00
73·6	·831	8·9	1·8	83·7	511·3	16·00	13·00	1·00	1·00	0·00	...	198·7	6·0	3·1	15	7·95	7·62
72·9	·811	8·7	1·4	85·5	514·3	11·75	10·75	3·00	4·00	0·50	...	...	6·0	3·4	8	1·32	1·10
69·8	·731	7·9	1·3	85·5	519·2	15·50	13·00	1·25	1·25	0·00	...	...	5·9	3·7	4	0·97	0·87
70·5	·753	8·0	2·7	74·6	513·3	123·25	148·75	61·00	30·50	1·50	...	147·2 §	5·8	4·2	121	53·39	43·76

Long. 64° 47′ W. Height above Sea 120 feet.

55·8	·446	4·9	1·8	73·2	529·8	8·50	8·50	5·50	5·50	3·00	...	249·5	6·9	6·5	16	2·99	2·61
56·2	·453	5·0	1·9	73·0	527·7	6·50	5·50	9·00	6·00	1·00	...	282·1	7·7	7·1	14	4·39	3·56
54·6	·426	4·7	2·1	69·1	526·4	6·50	5·00	7·00	12·50	0·00	...	344·1	7·6	7·0	19	5·75	4·45
59·9	·517	5·6	2·8	66·6	521·9	7·00	3·00	10·50	9·50	0·00	...	253·0	5·4	7·1	7	1·68	1·45
63·1	·578	6·3	3·0	67·6	517·5	5·50	5·50	11·50	4·50	4·00	...	234·3	6·1	7·3	11	1·82	1·64
71·7	·784	8·4	2·6	76·0	511·4	3·00	4·00	10·00	12·00	1·00	...	188·7	6·4	6·6	9	3 68	3·27
72·2	·791	8·4	4·4	65·2	507·7	1·50	4·00	15·50	9·00	1·00	...	181·3	5·7	6·5	13	4·50	4·02
74·3	·845	9·0	3·2	74·0	507·2	2·00	2·50	14·00	11·50	1·00	...	207·6	6·9	6·5	20	9·74	6·93‖
69·5	·721	7·7	2·8	72·6	511·4	8·50	8·50	4·00	5·00	4·00	...	191·7	7·1	6·4	18	5·37	4·53
66·9	·660	7·1	2·7	73·0	514·1	8·00	7·00	6·00	8·00	2·00	...	255·3	6·3	6·6	15	14·88	13·36
60·4	·526	5·7	2·6	69·0	521·3	8·50	7·50	6·00	6·00	2·00	...	259·7	7·1	6·5	14	5·61	4·70
55·9	·447	4·9	2·1	69·7	527·3	11·50	6·75	3·75	7·50	1·50	...	...	7·6	...	15	2·90	...
63·4	·599	6·5	2·7	70·7	518·6	77·00	67·75	102·75	97·00	20·50	...	240·7 ¶	6·7	6·2 ¶	171	63·31	50·52

* January to June only.
§ For 10 months only.
† 303½ days only, April half a day short.
‖ Several days out of order, no entry.
‡ 9 months only
¶ 11 months only.

Appendix

Summary of Results of Meteorological Observations taken at

Stations, with their Height above the Sea.		Readings of the Barometer.			Temperature of the Air.							Mean Daily Readings of			
								Mean						Hygrometer.	
		Mean reduced and corrected to 32°.	Highest reduced and corrected to 32°.	Lowest reduced and corrected to 32°.	Highest during Year.	Lowest during Year.	Range during Year.	Of all the highest.	Of all the lowest.	Daily Range.	Approximate Temperature.	Maximum in Sun's rays.	Minimum on Grass.	Dry Bulb.	Wet Bulb.
*Halifax, N.S. ...	175 ft.	29·791	During year. 30·570	28·835	87·0	-15·7	102·7	53·6	31·0	22·6	42·3	97·0	27.9	45·4	42·2
Barbadoes	25 ,,	Too incomplete to summarize			90·0	63·0	27·0	87·2	73·1	14·1	80·1	134·4	69·9	82·4	74·9
†Newcastle, Jamaica ...	3,800 ,,	Ditto	...	...	89·0	33·0	56·0	78·3	49·8	28·5	64·0	137·7	49·2	71·0	66·1
‡Up Park Camp, Jamaica ...	225 ,,	29·752	30·398	29·383	100·5	58·5	42·0	94·8	65·0	29·8	79·9	141·8	60·3	83·6	74·6
Nassau, Bahamas	44 ,,	30·055	30·408	29·770	96·3	48·3	48·0	86·4	68·3	18·1	77·3	141·0	70·8	79·3	74·1
§Bermuda	120 ,,	29·977	30·356	29·322	95·2	42·6	52·6	78·1	63·5	14·6	70·8	133·6	55·0	73·5	67·7

Abstract of Results of Meteorological Observations taken at Stations in

COLOMBO, CEYLON. Lat. 6° 56′ N.

Month.														
January	29·899	30·033	29·791	89·0	69·5	19·5	85·1	73·5	11·6	79·3	153·7	60·4	81·5	75·5
February	29·873	29·976	29·744	88·2	72·6	15·6	85·0	74·6	10·4	79·9	150·7	60·8	82·6	76·7
March	29·839	29·956	29·724	90·0	71·2	18·8	87·4	75·6	11·8	81·5	152·6	61·7	84·7	77·5
April	29·833	30·014	29·723	98·6	68·0	30·6	95·8	73·0	22·8	84·4	144·5	74·1	89·5	81·2
May	29·812	29·936	29·651	97·2	71·2	26·0	91·6	76·4	15·2	84·0	138·6	74·0	86·4	80·4
June	29·836	29·946	29·691	95·8	74·0	21·8	91·6	77·4	14·2	84·5	139·8	75·4	85·1	79·7
July	29·847	29·947	29·745	93·0	72·0	21·0	90·8	76·4	14·4	83·6	139·2	74·5	84·2	78·5
August	29·861	29·968	29·751	96·1	73·9	22·2	93·8	77·2	16·6	85·5	142·4	75·5	86·1	79·4
September	29·853	29·962	29·739	95·6	74·3	21·3	92·4	77·2	15·2	84·8	141·1	75·5	85·4	78·8
October	29·862	30·019	29·722	95·4	71·0	24·4	91·6	74·6	17·0	83·1	136·8	72·6	84·6	78·6
November	29·907	30·018	29·77	97·5	72·0	25·5	93·2	74·4	18·8	83·8	138·1	72·3	85·1	78·6
December	29·918	30·026	29·794	97·5	71·8	25·7	92·6	73·2	19·4	82·9	140·3	71·6	84·3	77·6
Yearly Sums, Means, and Totals	29·862	29·983	29·737	94·5	71·8	22·7	90·9	75·3	15·6	83·1	143·1	70·7	84·9	78·5

KANDI, CEYLON. Lat. 7° 18′ N.

January	...	...	...	96·4	55·4	41·0	88·2	61·6	26·6	74·9	...	...	76·7	71·3
February	...	...	...	96·6	51·0	45·6	90·4	62·0	28·4	76·2	...	...	79·2	72·9
March	...	...	...	101·2	55·8	45·4	95·6	61·4	34·2	78·5	...	...	84·7	76·6
April	...	...	...	102·2	59·6	42·6	97·0	64·6	32·4	80·8	...	...	85·5	77·4
May	...	...	...	94·6	56·0	38·6	87·7	65·5	22·2	76·6	...	...	80·4	74·8
June	...	...	...	89·2	59·6	29·6	83·8	64·2	19·6	74·0	...	...	77·5	73·8
July	...	...	...	90·2	61·0	29·2	82·4	64·4	18·0	73·4	...	...	76·6	72·6
August	...	...	...	95·0	61·2	33·8	87·2	64·6	22·6	75·9	...	...	78·8	73·5
September	...	...	...	87·0	54·6	32·4	82·5	64·7	17·8	73·6	...	...	76·6	72·7
October	...	...	...	92·4	58·2	34·2	83·6	64·0	19·6	73·8	...	...	77·5	72·0
November	...	...	...	91·4	58·4	33·0	87·8	64·0	23·8	75·9	...	...	78·6	72·7
December	...	...	...	91·2	59·4	31·8	87·2	63·2	24·0	75·2	...	...	77·0	71·3
Yearly Sums, Means, and Totals	...	...	...	93·9	57·5	36·4	87·8	63·7	24·1	75·7	...	...	79·1	73.5

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* Halifax.—Anemometer readings for nine months only.
† Newcastle.—Observations for nine months only. *Vide* Abstract.
‡ Up Park Camp.—The "means" are for broken periods. *Vide* Abstract for that Station.
§ Bermuda.—Anemometer readings and Ozone Scale for eleven months only.

No. VII.—*continued.*

Stations in North America and the West Indies, in the Year 1874.

Hygrometrical Results from laisher's Tables (5th edition).						Atmospherical Conditions.												
Point.	Mean elastic Force of Vapour	In a Cubic Foot of Air.			Mean Weight of Cubic Foot of Air.	Number of Days for mean Direction of Wind.				Number of calm, or nearly calm, Days.	Calculated from Robinson's Anemometer.		Amount of Cloud 0—10.	Ozone Scale 0—10.	Number of Days on which Rain fell.	Rainfall on the Ground.	Latitude.	Longitude.
		Mean Weight of Vapour.	Mean additional Weight required for Saturation.	Mean Degree of Humidity.		North.	East.	South.	West.		Mean daily pressure of Wind.	Mean daily Horizontal Movement of the Air.						
											lbs. per sq. foot	Miles				Inches	° ′	° ′
·8	·259	2·9	1·0	75·0	546·8	89·75	33·50	90·50	135·75	15·50	...	235·4	6·4	2·4	170	60·70	44 39 N.	63 36 W.
·9	·730	7·8	3·9	66·6	...	155·75	181·50	18·75	...	9·00	...	189·1	6·2	5·8	212	53·89	13 4 ,,	59 40 ,,
·3	·568	6·2	2·1	73·9	...	8·25	6·25	2·25	4·75	190·50	...	...	2·6	5·1	119	78·52	18 62 ,,	76 42 ,,
·7	70·2	7·4	4·8	60·7	504·9	53·75	138·50	101·25	3·50	6·50	...	...	2·6	4·3	62	31·78	17 59 ,,	76 56 ,,
·5	·753	8·0	2·7	74·6	513·3	123·25	148·75	61·00	30·50	1·50	...	147·2	5·8	4·2	121	53·39	25 5 ,,	77 21 ,,
·4	·599	6·5	2·7	70·7	518·6	77·00	67·75	102·75	97·00	20·50	...	240·7	6·7	6·2	171	63·31	32 17 ,,	64 47 ,,

the Island of Ceylon, Straits Settlements, and China, in the Year 1874.

Long. 79° 49′ E. Height above Sea 18 feet.

·4	·771	8·3	3·2	72·0	508·3	14·25	7·25	0·25	8·25	1·00	...	160·1	4·6	1·1	7	2·23	...	...
·8	·805	8·6	3·2	72·4	506·8	5·25	3·25	2·75	13·75	3·00	...	96·6	4·6	1·7	8	5·18	...	...
·8	·808	8·6	4·1	67·2	504·2	3·75	3·25	10·50	12·00	1·50	...	128·3	5·2	1·0	3	1·66	...	...
·0	·897	9·4	5·2	64·3	499·3	0·75	1·00	11·50	10·25	6·50	...	141·4	6·5	3·9	10	4·35	...	...
·5	·916	9·7	3·7	72·0	501·6	1·00	0·00	12·75	13·75	3·50	...	189·2	9·0	4·1	20	12·18	...	...
·2	·905	9·5	3·3	74·4	503·2	1·25	0·00	13·25	14·50	1·00	...	184·7	8·9	3·8	17	4·87	...	...
·7	·861	9·1	3·4	73·2	504·5	0·00	0·00	15·25	14·75	1·00	...	181·5	9·1	3·5	12	2·45	...	...
·1	·873	9·2	4·1	69·3	502·9	1·00	0·75	14·25	15·00	0·00	...	178·9	8·6	3·3	10	1·03	...	...
·5	·856	9·0	3·9	70·0	503·5	0·25	0·00	14·75	15·00	0·00	...	304·4	9·0	3·5	9	1·54	...	...
·7	·860	9·1	3·6	72·0	504·4	0·25	0·00	14·75	15·00	1·00	...	...	8·4	5·9	17	30·64	...	...
·4	·852	9·0	3·9	70·1	505·0	4·75	6·25	8·75	7·25	3·00	...	...	6·1	2·8	14	19·05	...	...
·2	·818	8·7	3·8	69·2	505·9	11·75	9·75	2·75	5·25	1·50	...	...	5·0	3·6	10	5·61	...	...
·4	·852	9·0	3·8	70·5	504·1	41·25	31·50	121·50	144·75	23·00	...	173·9*	7·1	3·2	137	90·79	...	...

Long. 80° 48′ E. Height above Sea 1,678 feet.

·5	·674	7·3	2·6	73·4	...	0·00	31·00	0 00	0·00	0·00	...	...	3·3	4·7	12	2·63	...	...
·6	·700	7·5	3·2	69·8	...	0·00	21·00	0.50	0·50	6·00	...	...	3·9	5·7	7	3 28	...	...
·3	·768	8·2	4·5	64·3	...	0·00	10·00	3·00	3·00	15·00	...	...	2·5	4·6	2	1·76	...	...
·1	·790	8·4	4·6	64·1	...	3·50	1·50	4·00	12·00	9·00	...	...	4·9	4·8	18	4·39	...	...
0	·760	8·1	3·0	72·6	...	0·00	0·00	5·00	23·00	3·00	...	...	6·4	6·5	22	8·58	...	...
·2	·766	8·2	1·9	81·0	...	0·00	0·00	5·50	24·50	0·00	...	...	7·0	6·3	27	11·49	...	...
·8	·729	7·9	2·0	79·6	...	0·00	0·00	6·50	24·50	0·00	...	...	5·1	6·0	22	8·23	...	...
·9	·731	7·8	2·7	73·8	...	0·00	0·00	6·50	24·50	0·00	...	...	4·3	5·3	13	2·48	...	...
·0	·733	7·9	1·9	80·1	...	0·00	0·00	5·00	25·00	0·00	...	...	3·8	5·9	27	6·27	...	...
·1	·689	7·4	2·7	73·0	...	2·25	2·75	2 50	22·00	1·50	...	...	5·3	4·1	23	10·76	...	...
·6	·701	7·5	3·0	71·4	...	8·00	5·25	1·00	11·25	4·50	...	...	4·6	3·3	19	15·81	...	...
·3	670	7·2	2·8	72·2	...	5·25	11·50	3·25	3·00	8·00	...	...	4·3	4·2	14	3·80	...	...
·6	·726	7·8	2·9	72·9	...	19·00	83·00	42·75	173·25	47·00	...	...	4·6	5·1	206	79·48	...	...

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* Nine months only.

Appendix

Abstract of Results of Meteorological Observations taken at Stations in

TRINCOMALEE, CEYLON. Lat. 8° 30′ N.

Month.	Readings of the Barometer.			Temperature of the Air.							Mean Daily Readings of			
							Mean						Hygromete	
	Mean reduced and corrected to 32°.	Highest reduced and corrected to 32°.	Lowest reduced and corrected to 32°.	Highest during Month.	Lowest during Month.	Range during Month.	Of all the highest.	Of all the lowest.	Daily Range.	Approximate Temperature.	Maximum in Sun's rays.	Minimum on Grass.	Dry Bulb.	Wet Bulb.
January	...	...	...	91·0	66·0	25·0	88·2	70·8	17·4	79·5	...	...	83·5	77·6
February	...	...	...	92·4	64·0	28·4	90·4	70·6	19·8	80·5	...	...	84·3	78·9
March	...	...	...	99·0	65·0	34·0	93·1	70·5	22·6	81·8	...	...	86·0	79·4
April	...	...	...	104·0	70·0	34·0	96·9	72.3	24·6	84·6	...	...	90·3	80·6
May	...	...	...	102·0	64·0	38·0	97·7	72·5	25·2	85·0	...	...	88·9	80·0
June	...	...	...	103·0	67·0	36·0	97·9	72·8	25·1	85·4	...	...	89·1	79·3
July	...	...	...	101·2	70·0	31·2	97·2	72·6	24·6	84·9	...	...	86·7	79·0
August	...	...	...	101·4	70·0	31·4	98·8	71·8	27·0	85·3	...	...	86·5	79·1
September	...	...	...	99·0	68·0	31·0	95·7	70·9	24·8	83·3	...	...	85·3	78·8
October...	...	...	...	101·4	67·0	34·4	95·3	70·7	24·6	83·0	...	...	85·4	78·7
November	...	...	...	95·0	68·0	27·0	90·6	70·0	20·6	80·3	...	...	83·9	79·6
December	...	...	...	92·5	66·0	26·5	87·2	69·6	17·6	78·4	...	...	82·3	77·8
Yearly Sums, Means, and Totals ...	...	...	...	98·5	67·1	31·4	94·1	71·3	22·8	82 7	...	...	86·0	79·1

SINGAPORE. Lat. 1° 16′ N.

Month.	Mean reduced and corrected to 32°.	Highest reduced and corrected to 32°.	Lowest reduced and corrected to 32°.	Highest during Month.	Lowest during Month.	Range during Month.	Of all the highest.	Of all the lowest.	Daily Range.	Approximate Temperature.	Maximum in Sun's rays.	Minimum on Grass.	Dry Bulb.	Wet Bulb.
January	29·279	29·394	29·172	98. 6	64·6	34·0	95·3	67·1	28·2	81·2	...	60·4	83·1	77·1
February	29·256	29·348	29·106	99·6	62·2	37·4	96·8	67·4	29·4	82·1	...	55·2	84·2	79·0
March	29·182	29·312	29·084	102·6	66·8	35·8	100·7	69·1	31·6	84·9	...	57·3	86·2	82·2
April	29·214	29·320	29·083	103·2	67·2	36·0	97·0	69·4	27·6	83·2	...	60·2	85·2	81·5
May	29·190	29·229	29·092	102·4	67·4	35·0	99·0	70·8	28·2	84·9	...	59·4	84·5	81·1
June	29·182	29·220	29·077	106·0	68·4	37·6	100·5	71·1	29·4	85·8	...	60·1	85·0	81·7
July	29·180	29·304	29·084	...	68·2	...	...	72·7	...	...	...	...	83·4	78·8
August	29·204	29·306	29·101	...	69·4	...	...	72·1	...	...	...	...	82·9	78·5
September	29·203	29·316	29·070	...	68·2	...	...	72·3	...	...	...	...	83·4	79·3
October...	29·194	29·280	29·051	...	70·2	...	...	72·2	...	...	...	...	83·9	80·0
November	29·217	29·291	29·131	...	69·5	...	...	71·1	...	...	...	...	82·5	79·1
December	29·223	29·322	29·108	...	69·2	...	...	70·4	...	...	...	...	82·9	79·3
Yearly Sums, Means, and Totals ..	29·210	29·303	29·097	...	67·6	...	...	70·5	...	...	...	...	83·9	79·8

HONG KONG. Lat. 22° 16′ N.

Month.	Mean reduced and corrected to 32°.	Highest reduced and corrected to 32°.	Lowest reduced and corrected to 32°.	Highest during Month.	Lowest during Month.	Range during Month.	Of all the highest.	Of all the lowest.	Daily Range.	Approximate Temperature.	Maximum in Sun's rays.	Minimum on Grass.	Dry Bulb.	Wet Bulb.
January	30·012	30·245	29·811	74·5	45·0	29·5	63·3	53·3	10·0	58·3	88·4	49·9	59·4	54·6
February	29·948	30·210	29·670	76·0	51·0	25·0	66·0	57·2	8·8	61·6	96·2	55·2	61·6	58·0
March	29·857	30·083	29·716	79·8	52·0	27·8	69·2	60·2	9·0	64·7	95·7	58·6	65·1	61·7
April	29·831	29·992	29·655	88·6	59·0	29·6	78·1	65·1	13·0	71·6	111·0	63·3	71·9	66·1
May	29·626	29·761	29·455	95·8	66·5	29·3	82·9	73·9	9·0	78·4	108·3	72·6	78·8	75·0
June	29·644	29·789	29·370	100·4	76·0	24·4	94·8	79·0	15·8	87·0	134·7	76·6	87·4	80·1
July	29·572	29·695	29·321	99·2	75·9	23·3	93·0	79·8	13·2	86·4	132·8	77·1	86·9	80·7
August	29·612	29·774	29·471	97·8	75·5	22·3	91·1	78·3	12·8	84·7	128·6	76·0	85·0	80·6
September	29·684	29·828	29·460	95·4	75·0	20·4	90·5	78·1	12·4	84·3	131·4	75·2	85·2	80·8
October...	29·835	30·095	29·577	96·4	61·0	35·4	86·6	74·6	12·0	80·6	127·1	71·8	81·3	76·4
November	30·006	30·248	29·801	83·8	46·4	37·4	75·4	62·2	13·2	68·8	111·8	58·6	70·3	66·1
December	29·985	30·119	29·806	83·4	51·8	31·6	71·8	60·0	11·8	65·9	103·6	56·9	66·9	60·6
Yearly Sums, Means, and Totals ...	29·801	29·986	29·593	89·3	61·3	28·0	80·2	68·5	11·7	74·3	114·1	65·9	74·9	70·0

No. VII.—*continued.*

the Island of Ceylon, Straits Settlements, and China, in the Year 1874.

Long. 82° E. Height above Sea 25 feet.

Hygrometrical Results from Glashier's Tables (5th edition).						Atmospherical Conditions.											
		In a Cubic Foot of Air.				Number of Days for mean Direction of Wind.					Calculated from Robinson's Anemometer.					Amount of Rain fall.	
Mean Temperature of Dew Point.	Mean elastic Force of Vapour.	Mean Weight of Vapour.	Mean additional Weight required for Saturation.	Mean degree of Humidity.	Mean Weight of Cubic Foot of Air.	North.	East.	South.	West.	Number of calm, or nearly calm, Days.	Mean daily pressure of Wind.	Mean daily Horizontal Movement of the Air.	Amount of Cloud 0—10.	Ozone Scale 0—10.	Number of days on which Rain fell.	On the Ground.	Feet above the Ground.
											lbs. per sq. foot	Miles				Inches	Inches
73·7	·830	8·8	3·4	72·4	...	11·00	20·00	0·00	0·00	0·00	...	...	3·0	5·8	10	2·13	...
75·3	·879	9·3	3·2	74·4	...	3·50	24·50	0·00	0·00	0·00	...	...	2·8	5·5	3	2·25	...
75·1	·875	9·2	4·0	69·6	...	0·00	25·00	3·00	3·00	0·00	...	...	2·4	5·4	3	2·04	...
74·6	·856	8·9	6·0	59·9	...	2·00	26·00	1·00	1·00	0·00	...	...	1·7	4·4	2	0·08	...
74·4	·849	8·9	5·4	62·3	...	0·00	2·00	14·50	14·50	0·00	...	...	3·1	5·2	7	2·74	...
73·1	·813	8·5	5·9	58·6	...	0·00	0·00	15·00	15·00	0·00	...	...	3·3	4·6	7	3·30	...
74·1	·842	8·9	4·6	65·9	...	0·00	0·00	15·50	15·50	0·00	...	...	3·2	5·1	8	6·90	...
74·4	·851	8·9	4·4	66·9	...	0·00	1·00	15·00	15·00	0·00	...	...	3·7	4·8	11	4·06	...
74·6	·858	9·0	3·9	70·3	...	0·00	6·00	12·00	12·00	0·00	...	...	3·9	4·6	14	10·93	...
74·3	·852	9·0	4·0	69·6	...	0·00	2·50	14·50	13·50	0·50	...	...	4·3	5·8	8	9·55	...
76·8	·919	9·8	2·5	79·4	...	9·50	13·00	4·50	3·00	0·00	...	...	5·6	6·3	17	9·45	...
74·8	·862	9·2	2·6	78·0	...	14·50	10·00	1·75	4·75	0·00	...	...	5·5	6·8	21	14·19	...
74·6	·857	9·0	4·2	68·9	...	40·50	130·00	96·75	97·25	0·50	...	...	3·5	5·4	111	68·62	...

Long. 105° 31′ E. Height above the Sea 116 feet.

73·1	·813	8·6	3·4	72·0	496·2	...	...	...	...	...	...	96·7	6·7	4·7	18	4·20	...
75·6	·885	9·4	3·1	75·2	494·4	...	...	...	...	...	...	104·2	6·5	4·2	10	3·22	...
79·6	1·015	10·7	2·6	80·2	490·5	...	...	...	...	...	...	136·8	6·6	4·4	14	2·16	...
79·1	·996	10·6	2·3	81·7	492·2	...	...	...	...	...	...	72·2	5·6	3·3	16	5·33	...
78·9	·987	10·5	2·2	83·5	492·4	...	...	...	...	...	...	54·5	6·0	3·4	13	4·01	...
79·5	1·010	10·7	2·1	83·5	461·6	...	...	...	...	...	...	71·0	5·9	3·2	14	6·51	...
75·7	·888	9·5	2·7	77·6	493·8	...	...	...	...	...	...	74·4	5·0	3·1	21	5·15	...
75·6	·883	9·4	2·6	78·9	494·7	...	...	...	...	...	...	76·3	5·4	3·4	18	10·91	...
76·6	·913	9·8	2·4	79·9	494·0	...	...	...	...	...	...	71·7	4·9	2·8	19	7·42	...
77·4	·939	10·0	2·3	80·5	493·2	...	...	...	...	...	...	91·1	4·9	3·1	20	8·24	...
76·8	·920	9·8	2·0	83·0	495·1	...	...	...	...	...	...	72·4	5·3	2·6	26	18·63	...
76·9	·922	9·8	2·2	82·0	494·7	...	...	...	...	...	...	55·9	5·0	3·3	23	7·48	...
77·1	93·1	9·9	2·5	79·8	491·1	...	...	...	...	...	...	81·4	5·6	3·5	212	83·26	...

Long. 114° 9′ E. Height above Sea 43 feet.

50·2	·364	4·1	1·6	72·0	535·2	7·00	18·75	1·25	4·00	0·00	...	...	6·0	3·2	4	0·30	0·25
54·9	·431	4·8	1·3	79·0	530·7	6·25	16·75	2·75	1·75	0·50	...	...	6·6	3·3	7	2·06	1·53
58·9	·499	5·5	1·3	81·0	525·3	4·00	19·50	3·00	4·00	0·50	...	...	8·1	2·8	10	4·41	3·60
61·7	·552	6·0	2·5	69·9	517·8	3·75	19·75	2·00	3·00	1·50	...	...	5·9	2·9	12	7·07	4·32
72·4	·796	8·5	2·0	80·0	506·1	0·00	12·25	10·25	6·50	2·00	...	...	9·0	3·8	24	39·76	35·16
75·4	·882	9·3	4·5	67·8	498·1	0·50	7·75	12·00	8·25	1·50	...	...	6·0	1·9	13	10·54	10·12
76·7	·922	9·7	3·8	71·2	497·1	0·25	7·00	8·00	14·75	1·00	...	...	5·5	2·0	16	9·87	9·54
77·7	·953	10·1	2·7	78·4	499·3	1·50	9·75	9·50	6·25	4·00	...	...	7·0	2·5	18	11·68	9·75
77·9	·959	10·1	2·7	78·4	500·2	2·25	11·75	8·00	6·50	1·50	...	...	5·2	3·0	15	6·20	5·82
73·1	·815	8·7	2·7	76·4	507·2	5·75	21·00	0·75	1·00	2·50	...	...	4·3	4·5	4	4·20	4·01
62·9	·575	6·3	1·8	77·0	522·2	7·50	15·25	0·25	2·50	4·50	...	...	3·5	6·2	2	0·11	0·11
55·6	·442	4·9	2·4	67·4	526·2	3·25	23·00	0·00	1·25	3·50	...	...	4·5	5·7	2	0·19	0·18
66·4	68·2	7·3	2·4	74·9	513·8	42·00	182·50	57·75	59·75	23·00	...	...	5·9	3·5	127	96·39	84·39

Summary of Results of Meteorological Observations taken at Stations in

Stations, with their Height above the Sea.	Readings of the Barometer.			Temperature of the Air.							Mean Daily Readings of			
	Mean reduced and corrected to 32°.	Highest reduced and corrected to 32°.	Lowest reduced and corrected to 32°.	Highest during Year.	Lowest during Year.	Range during Year.	Mean				Maximum in Sun's rays.	Minimum on Grass.	Hygrometer.	
							Of all the highest.	Of all the lowest.	Daily Range.	Approximate Temperature.			Dry Bulb.	Wet Bulb.
Colombo* ... 18 ft.	29·862	30·033	29·651	98·6	68·0	30·6	90·9	75·3	15·6	83·1	143·1	70·7	84·9	78·5
Kandi ... 1,687 ,,	...	...	...	102·2	51·0	51·2	87·8	63·7	24·1	75·7	...	...	79·1	73·5
Trincomalee 25 ,,	...	...	...	104·0	64·0	40·0	94·1	71·3	22·8	82·7	...	...	86·0	79·1
Singapore ... 116 ,,	29·210	29·394	29·051	...	62·2	...	...	70·5	...	...	...	...	83·9	79·8
Hong Kong 43 ,,	29·801	30·248	29·321	100·4	45·0	55·4	80·2	68·5	11·7	74·3	114·1	65·9	74·9	70·0

Abstract of Results of Meteorological Observations taken at Stations in

CAPE OF GOOD HOPE. Lat. 34° 56′ S.

January	29·883	30·052	29·752	98·2	42·5	55·7	85·2	56·2	29·0	70·7	134·0	53·6	75·3	66·1
February	29·899	30·137	22·718	93·5	50·0	43·5	83·2	56·2	27·0	69·7	133·5	51·1	72·9	62·9
March	29·879	30·021	29·703	93·6	50·2	43·4	80·6	57·2	23·4	68·9	129·3	54·0	70·7	63·5
April	30·010	30·168	29 729	83·8	47·8	36·0	70·0	54·8	15·2	62·4	114·2	51·2	63·8	59·6
May	30·094	30·441	29·847	79·0	41·4	37·6	67·7	48·8	18·9	58·2	104·0	44·2	61·0	56·9
June	30·193	30·452	29·845	79·8	34·4	45·4	66·3	45·1	21·2	55·7	98·8	40·0	59·4	56·4
July	30·205	30·409	29·914	69·2	38 0	31·2	61·0	45·0	16·0	53·0	95·2	40·9	55·9	53·3
August...	30·106	30·474	29·829	82·2	38·8	43·4	66·7	47·7	19·0	57·2	112·1	44·1	60·3	55·9
September	30·071	30·331	29·811	95·0	40·4	54 6	70·9	49·6	21·3	60·3	119·7	45·8	64·2	57·8
October	30·018	30·273	29·829	88·8	40·0	48·8	73·0	49·0	24·0	61·0	124·9	44·5	65·8	58·7
November	29·947	30·206	29·707	96·4	43·2	53·2	75·6	53·4	22·2	64·5	128·8	50·8	68·0	60·6
December	29·892	30·110	29·687	100·8	24·0	76·8	83·5	53·7	29·8	68·6	133·3	53·7	74·2	63·2
Yearly Sums, Means, and Totals ...	30·016	30·256	29·781	88·4	40·9	47·5	73·6	51·4	22·2	62·5	119·0	47·8	65·9	59·6

FORT NAPIER, NATAL. Lat. 29° 3′ S.

January	27·615	27·771	27·258	100·4	54·8	45·6	82·5	60·3	22·2	71·4	...	...	74·9	69·1
February	27·609	27·873	27·233	97·4	53·8	43·6	80·4	58·6	21·8	69·5	...	...	73·6	67·4
March	27·603	27·834	27·398	86·4	53·0	33·4	79·1	57·1	22·0	68·1	...	...	72·2	67·2
April	27·655	27·856	27·316	86·4	43·2	43·2	77·4	52·2	25·2	64·8	...	...	70·3	63·2
May	27·745	27·996	27·416	87·8	34·8	53·0	74·4	45·8	28·6	60·1	...	...	65·5	55·3
June	27·856	28·083	27·442	80·0	32·7	47·3	70·9	40·9	30·0	55·9	...	...	61·9	52·9
July	27·779	28·235	27·381	80·4	31·0	49·4	68·0	40·0	28·0	54·0	...	...	59·5	51·1
August	27·759	28·123	27·507	93·0	34·5	58·5	74·8	43·2	31·6	59·0	...	...	65·9	54·0
September	27·758	28·084	27·304	98·2	34·3	63·9	77·1	46·9	30·2	62·0	...	...	68·9	58·7
October	27·639	27·935	27·350	97·4	42·0	55·4	82·2	51·4	30·8	66·8	...	...	72·0	62·7
November	27·591	27·942	27·229	100·0	45·0	55·0	79·0	54·6	24·4	66·8	...	...	70·8	64·1
December	27·585	27·763	27·371	85·7	49·5	36·2	72·2	55·4	16·8	63·8	...	...	69·6	64·7
Yearly Sums, Means, and Totals ...	27·683	27·958	27·350	91·1	42·4	48·7	76·5	50·5	26·0	63·5	...	...	68·7	60·9

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* Anemometer readings for nine months only.

No. VII.—*continued.*

the Island of Ceylon, Straits Settlements, and China, in the Year 1874.

Hygrometrical Results from Glaisher's Tables (5th edition).						Atmospherical Conditions.													
Mean Temperature of Dew Point.	Mean elastic Force of Vapour.	In a Cubic Foot of Air.			Mean Weight of Cubic Foot of Air.	Number of Days for mean Direction of Wind.				Number of Calm, or nearly calm, Days.	Calculated from Robinson's Anemometer		Amount of Cloud 0—10.	Ozone Scale 0—10.	Number of Days on which Rain fell.	Amount of Rainfall.		Latitude.	Longitude.
		Mean Weight of Vapour.	Mean additional Weight required for Saturation.	Mean Degree of Humidity.		North.	East.	South.	West.		Mean daily pressure of Wind.	Mean daily Horizontal Movement of the Air.				On the Ground.	Feet above the Ground.		
											lbs. per sq. foot	Miles				Inches		° ′	° ′
74·4	852	9·0	3·8	70·5	504·1	44·25	31·50	121·50	144·75	23·00	...	173·9	7·1	3.2	137	90·79	...	6 56 N	79 49 E
69·6	·726	7·8	2·9	72·9	...	19·00	83·00	43·75	173·25	47·00	...	...	4·6	5·1	206	79·48	...	7 18 ,,	80 48 ,,
74·6	·857	9·0	4·2	68·9	...	40·50	130·00	96·75	97·25	·50	...	...	3·5	5·4	110	68·62	...	8 30 ,,	82 0 ,,
77·1	·931	9·9	2.5	79·8	491·1	No record.					...	81·4	5·6	3·5	212	83·26	...	1 16 ,,	105 31 ,,
66·4	·682	7·3	2.4	74·9	513·8	42·00	182·50	57·75	59·75	23·00	...	...	5·9	3·5	127	96·39	...	22 16 ,,	114 9 ,,

Cape of Good Hope, Natal, and Sierra Leone.

Long. 18° 27′ E. Height above Sea 27 feet.

												Miles.				Inches	Inches		
59·5	·510	5·5	4·0	57·5	515·8	7·00	7·00	7·25	7·75	2·00	...	...	0·6	1·5	1	0·26	0·19	...	...
55·5	·442	4·9	3·9	54·0	518·7	6·50	5·50	5·50	6·50	4·00	...	...	1·2	2·0	0	0·00	0·00	...	...
58·0	·483	5·3	2·9	64·2	520·2	11·50	5·50	4·50	9·50	0·00	...	...	3·7	3·7	5	0·97	0·82	...	...
56·1	·452	5·0	1·6	76·8	529·6	9·25	5·75	2·75	12·25	0·00	...	...	5·5	3·3	13	2·81	2·26	...	...
53·3	·407	4·6	1·4	76·5	534·2	8·75	4·25	5·00	13·00	0·00	...	...	5·2	3·0	8	0·79	0·46	...	...
53·7	·414	4·6	1·0	82·4	537·6	7·50	7·50	4·25	10·75	0·00	...	...	4·2	3·8	8	1·01	0·68	...	...
50·9	·374	4·2	0·8	84·3	541·7	10·50	4·75	5·00	10·75	0·00	...	...	4·9	5·7	17	4·92	4·07	...	...
52·1	·389	4·3	1·5	74·0	533·5	8·50	4·50	4·50	13·50	0·00	...	...	5·2	5·3	9	1·83	1·39	...	...
52·5	·396	4·4	2·2	65·4	530·6	8·75	5·50	6·25	9·50	0·00	...	...	3·6	5·9	6	0·91	0·64	...	...
53·6	·413	4·5	2·2	67·3	529·0	9·50	6·75	5·50	9·25	0·00	...	...	4·1	5·8	4	0·64	...	...	...
54·8	·430	4·7	2·8	62·4	524·5	10·25	3·50	5·25	11·00	0·00	...	...	5·4	5·8	6	1·31	...	...	...
55·2	·438	4·7	4·4	52·0	517·4	6·00	10·00	9·50	5·00	0·00*	...	...	3·0	5·7	...	...	...	...	...
54·6	·429	4·7	2·4	68·1	527·7	104·00	70·50	65·25	118·75	6·00	...	...	3·9	4·3	77	15·45	10·51	...	...

Long. 32° 2′ E. Height above Sea 2,200 feet.

64·8	·615	6·7	2·7	70·9	476·4	4·50	23·00	3·00	0·50	0·00	...	...	7·3	4·2	21	6·72	...	...	...
62·9	·574	6·2	2·7	69·2	477·6	2·75	18·25	6·25	0·75	0·00	...	...	7·7	...	14	6·74	...	...	...
63·4	·586	6·3	2·2	74·2	478·7	1·75	21·50	5·75	1·00	1·00	...	...	6·8	...	13	7·59	...	...	...
57·7	·478	5·2	2·9	64·6	481·9	8·50	16·50	2·75	1·75	0·50	...	...	4·8	...	7	1·35	...	...	...
47·0	·322	3·5	3·4	50·7	488·9	4·75	21·00	3·50	1·25	0·50	...	...	3·9	...	4	1·15	...	...	...
45·1	·302	3·4	3·8	54·9	494·4	3·75	19·25	5·50	0·50	1·00	...	...	2·5	...	1	0·05	...	...	...
43·7	·285	3·2	2·5	55·4	495·4	2·00	19·75	7·50	1·75	0·00	...	...	2·8	4·8	5	0·67	...	...	...
44·4	·291	3·2	3·8	45·3	488·9	1·50	22·75	3·50	2·75	0·50	...	...	2·8	4·3	2	0·07	...	...	...
50·7	·371	4·0	3·7	51·2	485·8	5·50	19·50	3·50	1·50	0·00	...	...	3·1	4·0	6	0·71	...	...	...
55·7	·446	4·9	4·0	56·1	480·4	5·50	20·25	2·50	2·25	0·50	...	...	5·1	4·1	9	2·44	...	...	...
59·0	·510	5·4	2·9	66·2	478·8	6·25	20·25	2·00	1·00	0·50	...	...	7·9	4·8	16	3·41	...	...	...
60·9	·534	5·9	2·1	74·1	481·2	2·25	23·75	4·75	0·25	0·00	...	...	8·6	5·1	24	11·49	...	...	...
54·6	·443	4·8	3·1	61·1	484 0	49·00	245·75	50·50	15·25	4·50	...	..	5·3	4·5	122	43·39	...	...	...

* December half a day short.

Appendix

Abstract of Results of Meteorological Observations taken at Stations in

FREETOWN, SIERRA LEONE. Lat. 8° 29′ N.

Month.	Readings of the Barometer.			Temperature of the Air.							Mean Daily Readings of			
							Mean						Hygrometer.	
	Mean reduced and corrected to 32°.	Highest reduced and corrected to 32°.	Lowest reduced and corrected to 32°.	Highest during Month.	Lowest during Month.	Range during Month.	Of all the highest.	Of all the lowest.	Daily Range.	Approximate Temperature.	Maximum in Sun's rays.	Minimum on Grass.	Dry Bulb.	Wet Bulb.
January	...	...	...	...	...	...	...	...	...	...	...	...	...	...
February	...	...	...	...	...	...	...	...	...	...	...	...	...	...
March	...	...	...	...	...	...	...	...	...	...	...	...	...	...
April	...	...	...	...	...	...	...	...	...	...	...	...	...	...
May	...	...	...	...	...	...	...	...	...	...	...	...	...	...
June	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July	...	...	...	...	...	...	...	...	...	...	...	...	...	...
August	...	...	...	...	...	...	...	...	...	...	...	...	...	...
September	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October*	29·839	29·867	28·854	91·0	68·0	23·0	87·4	72·0	15·4	79·7	139·2	71·2	82·1	78·8
November	28·936	28·954	28·941	92·0	69·0	23·0	88·2	73·0	15·2	80·6	135·9	71·9	82·1	78·9
December	28·938	28·956	28·930	90·5	68·5	22·0	88·0	73·8	14·2	80·9	133·0	71·9	82·6	79·3
Yearly Sums, Means, and Totals ...	29·238	29·259	28·908	91·1	68·5	22·6	87·8	72·9	14·9	80·4	136·0	71·6	82·2	79·0

Summary of Results of Meteorological Observations taken at Stations in

	feet														
Cape of Good Hope ...	27	30·016	30·474	29·687	100·8	24·0	76·8	73·6	51·4	22·2	62·5	119·0	47·8	65·9	59·6
Fort Napier, Natal ...	2,200	27·683	28·235	27·229	100·4	31·0	69·4	76·5	50·5	26·0	63·5	...	...	68·7	60·9
Sierra Leone† ...	224	29·238	29·867	28·854	92·0	68·0	24·0	87·8	72·9	14·9	80·4	136·0	71·6	82·2	79·0

* Barometrical observations in October unreliable.

† Observations for three months only.

No. VII.—*continued.*

Cape of Good Hope, Natal, and Sierra Leone, in the Year 1874.

Long. 13° 9′ Height above Sea 224 feet.

ygrometrical Results from isher's Tables (5th edition).					Atmospherical Conditions.													
	In a Cubic Foot of Air.				Number of Days for mean Direction of Wind.					Calculated from Robinson's Anemometer.					Amount of Rainfall.			
Mean elastic Force of Vapour.	Mean Weight of Vapour.	Mean additional Weight required for Saturation.	Mean Degree of Humidity.	Mean Weight of Cubic Foot of Air.	North.	East.	South.	West.	Number of calm, or nearly calm, Days.	Mean daily pressure of Wind.	Mean daily Horizontal Movement of the Air.	Amount of Cloud 0—10.	Ozone Scale 0—10.	Number of Days on which Rain fell.	On the Ground.	Feet above the Ground.	Latitude.	Longitude.
...	...	...	..	...	...	...	. .	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...
...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
·914	9·8	2·0	83·6	...	0·25	2·50	8·25	19·50	0·50	...	...	4·0	...	24	9·78	8·92	...	...
·919	9·8	1·9	84·1	...	2·00	7·00	1·75	17·75	1·50	...	...	7·0	...	17	5·62	4·79	...	...
·928	9·9	2·0	83·5	...	5·25	10·75	1·75	9·25	4·00	...	...	5·0	..	8	3·07	2·59	...	...
·920	9·8	2·0	83·7	...	7·50	20·25	11·75	46·50	6·00	...	...	5·3	...	49	18·47	16·30	...	...

Cape of Good Hope, Natal, and Sierra Leone, in the Year 1874.

											Miles.				Inches.		° ′	° ′
·429	4·7	2·4	68·1	527·7	104·00	70·50	65·25	118·75	6·00	...	...	3·9	4·3	77	15·45	...	34 56 S.	18 27 E.
·443	4·8	3·1	61·1	484·0	49·00	245·75	50·50	15·25	4·50	...	...	5·3	4.5	122	42·39	...	29 3 ,,	30 2 ,,
·920	9·8	2·0	83·7	...	7·50	20·25	11·75	46·50	6·50	...	...	5·3	...	49	18·47	...	8 29 N.	13 9 W.

APPENDIX

Annual Abstract of Meteorological Observations

GIBRALTAR. Lat. 36° 6′ N.

Month.	Mean Pressure.*	Air Temperature.										Tension of Vapour.	Relative Humidity.		
		Hourly Means.		Daily Means.		Means of.		Abs. Min.		Abs. Max.					
		9 a.m.	9 p.m.	Simple.	Reduced.	Min.	Max.	Temp.	Day.	Temp	Day.		Mean.	Minimum.	Day.
January	30·298	54·0	...	...	...	51·4	63·4	42·0	1st	69·0	18th	·358	76·8	66·7	17th
February	30·006	54·8	...	...	...	51·8	63·6	46·4	1st	70·2	17th	·323	69·5	47.0	18th
March	30·039	58·0	...	...	...	54·9	64·1	45·0	3rd	72·0	7th	·354	70·0	57·2	15th
April	30·036	61·2	...	...	...	57·6	67·7	52·5	10th	77·0	26th	·396	73·5	54·5	12th
May	29·979	68·9	...	...	...	65·9	76·0	58·5	1st	82·0	22nd	·514	67·8	49·9	19th
June	30·039	72·4	...	...	...	69·0	81·2	63·5	3rd	86·2	21st	·483	58·0	27·3	23rd
July	30·020	74·0	...	...	...	70·8	82·8	65·0	7th	87·3	11th	·533	59·7	50·0	9th
August	30·034	77·2	...	...	...	74·0	87·4	69·0	9th	91·0	12th	·633	65·4	41·6	3rd
September	30·057	74·5	...	...	...	72·5	81·3	69·0	25th	86·0	2nd	·581	65·2	50·5	13th
October	30·025	68·2	...	...	...	60·7	74·7	58·0	20th	85·0	9th	·505	68·0	53·0	10th
November	30·024	61·7	...	...	...	58·8	68·4	51·5	26th	77·0	6th	·422	74·0	58·0	25th
December	30·068	54·1	...	...	...	50·0	59·0	47·0	2nd	65·0	16th	·322	74·0	56·5	5th
Mean	30·051	64·0	...	...	...	61·4	72·5	55·6	...	78·9	...	·452	68·5	51·0	..

MALTA. Lat. 35° 53′ N.

January	30·215	56·3	...	...	...	51·6	59·8	44·0	29th	64·0	6th	·343	72·8	60·0	24th
February	29·820	56·2	...	...	...	50·0	59·6	43·0	3rd	69·8	24th	·321	69·0	57·0	2nd
March	29·959	57·6	...	...	...	53·1	60·9	47·0	26th	71·2	12th	·354	75·0	61·0	2nd
April	29·988	60·8	...	...	...	54·9	63·3	49·0	1st	67·6	23rd	·468	85·6	75·5	1st
May	30·017	70·8	...	...	...	63·6	74·0	55·4	1st	81·8	23rd	·617	79·0	51·5	27th
June	29·994	77·4	...	...	...	70·6	81·2	63·4	5th	90·0	16th	·580	59·2	31·0	17th
July	29·971	81·1	...	...	...	74·3	85·9	69·0	1st	95·0	8th	·667	60·0	33·6	8th
August	30·033	82·7	...	...	...	75·9	86·9	62·2	27th	91·0	4th	·718	62·3	53·5	22nd
September	30·076	78·0	...	...	...	72·0	81·2	67·8	21st	88·2	2nd	·677	68·6	57·8	6th
October	29·945	71·6	...	...	...	65·6	74·8	58·0	31st	80·4	22nd	·539	67·0	55·1	3rd
November	29·930	65·6	...	...	...	59·9	68·5	54·8	28th	75·2	11th	·470	74·0	63·2	14th
December	30·005	57·2	...	...	...	51·8	60·0	46·0	6th	69·8	3rd	·374	78·6	61·8	1st
Mean	29·996	67·9	...	...	...	61·9	71·3	54·9	...	78·7	...	·511	70·9	55·1	...

SCUTARI. Lat. 41° N.

January	30·119	41·0	...	...	...	36·0	45·8	25·4	8th	56·2	22nd	·216	81·5	58·0	13th
February	29·920	39·6	...	...	...	35·6	46·8	26·2	15th	60·0	11th	·211	81·0	67·5	11th
March	30·012	37·6	...	...	...	34·6	46·4	26·2	17th	57·0	30th	·207	81·7	62·4	17th
April	29·984	52·0	...	...	...	43·1	60·8	32·4	2nd	72·2	7th	·301	73·3	59·4	7th
May	30·003	61·6	...	...	...	50·6	71·9	41·8	8th	82·4	30th	·416	68·9	48·9	26th
June	29·924	76·4	...	...	...	62·0	87·6	54·4	6th	96·6	24th	·563	55·7	47·8	28th
July	29·849	76·9	...	...	...	64·6	88·6	59·6	7th	94·4	18th	·645	62·3	50·4	12th
August	29·941	75·5	...	...	...	63·1	85·5	58·4	29th	95·2	6th	·576	59·5	49·5	5th
September	30·024	64·9	...	...	...	53·5	74·5	39·4	26th	90·4	1st	·442	66·0	49·0	13th
October	29·935	63·2	...	...	...	53·1	71·3	41·2	27th	85·8	16th	·440	72·2	41·3	16th
November	30·010	53·1	...	...	...	46·0	60·1	36·0	14th	69·4	23rd	·334	78·2	62·8	24th
December	30·049	41·1	...	...	...	36·2	47·6	23·6	31st	66·4	4th	·218	80·1	58·0	4th
Mean	29·981	56·9	...	...	...	48·2	65·6	38·7	...	77·2	...	·381	71·7	54·6	...

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* The observations are reduced to Sea-level, and to 32° Fahrenheit

No. VIII.

taken at Foreign Stations in the Year 1875.

Long. 5° 20′ W. Height of Barometer Cistern above Sea 53 feet.

Rainfall.			Weather.								Wind.								
			Number of Days of								Number of Observations under each Point.								
Total.	Maximum.	Day.	Rain.	Snow.	Hail.	Thunder Storms.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calms.
0·74	0·39	10th	4	...	...	...	1	15	10	2	0·5	7·5	5·5	0·5	...	4·0	2·5	10·5	...
2·87	0·72	21st	9	...	...	...	...	15	10	2	...	...	3·0	1·0	...	6·0	8·5	9·5	...
4·99	1·60	19th	12	...	...	2	...	9	16	3	...	15·5	2·0	1·0	...	3·0	4·5	5·0	...
1·11	0·77	22nd	6	...	...	...	...	12	12	3	...	9·0	6·0	...	...	7·0	4·5	3·5	...
0·90	0·48	29th	4	...	...	1	...	13	9	1	...	15·0	6·0	...	...	6·5	3·5	...	...
0·17	0·17	2nd	1	...	...	...	...	22	1	...	...	12·0	1·0	...	...	13·5	2·5	1·0	...
0·06	0·08	7th	1	...	...	...	...	19	6	...	...	13·0	2·0	...	...	11·5	2·0	2·5	...
0 00	0·00	...	...	...	...	...	...	21	5	...	...	16·0	4·5	...	...	7·5	1·0	2·0	...
0·00	0·00	...	...	...	...	...	...	15	5	...	...	15·0	3·5	0·5	...	7·5	3·5	...	...
6·02	2·61	21st	9	...	...	1	...	13	13	2	...	7·0	1·0	...	...	15·5	3·5	2·5	1·5
9·77	6·38	24nd	8	...	...	...	...	12	11	1	...	11·0	0·5	...	...	8·5	6·5	3·5	...
7·61	0·95	16th	17	...	...	...	...	8	17	1	3·0	7·5	12·5	1·0	0·5	1·5	0·0	5·0	...
34·3	...	...	71	...	...	4	1	174	115	15	3·5	128·5	47·5	4·0	0. 5	92·0	42·5	45·0	1 5

Long. 14° 30′ E. Height of Barometer Cistern above Sea 70 feet.

0	1·23	0·54	2nd	8	...	...	...	...	18	6	...	1·0	5·5	0·5	5·5	0·5	5·5	0·5	15·0	...
0	3·56	1·40	13th	10	...	...	...	...	9	11	1	0·0	5·5	0·5	4·0	0·0	4·5	0·0	13·5	...
0	1·63	0·74	30th	12	...	...	...	...	11	13	...	0·5	7·0	0·0	5·0	0·0	3·0	0·0	15·5	...
5	0·69	0·20	4th	9	...	...	...	...	12	11	...	0·0	5·0	0·0	10·5	0·0	1·0	0·0	13·5	...
0	0·06	0·03	18th	3	...	...	1	...	15	6	...	0·0	15·0	0·0	6·5	0·0	2·0	0·0	7·5	...
0	0·00	0·00	...	...	...	...	...	...	14	3	...	0·0	8·5	0·0	8·0	0·0	0·5	0·0	13·0	...
0	0·00	0·00	...	.	...	...	...	...	19	3	...	0·0	11·5	0·0	7·5	0·0	3·0	0·0	9·0	...
0	0·00	0·00	...	...	...	...	...	...	23	1	...	0·0	14·5	0·0	1·0	0·0	4·0	0·0	11·5	...
5	3·30	2·10	28th	4	...	...	...	...	7	8	...	0·0	8·0	0·0	8·5	0·0	5·5	0·0	8·0	...
0	4·94	2·50	9th	13	...	...	3	...	2	13	...	0·0	3·5	0·0	8·0	0·0	7·0	0·0	12·5	...
0	3·12	1·94	28th	10	...	...	...	...	4	12	...	0·0	3·5	0·0	6·0	0·0	4·5	0·0	16·0	...
0	8·71	2·05	5th	16	...	...	...	...	2	22	...	0·0	8·0	0·0	4·0	0·0	3·5	0·0	15·5	...
4	27·24	...	..	85	...	...	4	...	136	109	1	1·5	95·5	1·0	71·5	0·5	44·0	0·5	150·5	...

Long. 29° 3′ E. Height of Barometer Cistern above Sea 60 feet.

·9	6·17	1·92	23rd	21	7	1	...	3	4	23	3	3·0	9·5	...	2·0	1·0	12·0	0·5	3·0	...
·7	3·53	0·58	6th	21	8	3	...	...	1	24	1	2·0	16·5	2·0	2·0	...	3·0	...	1·5	1·0
·2	6·12	2·20	22nd	20	11	...	...	...	4	24	4	3·5	18·5	1 0	0·5	0·5	4·0	1·0	1·0	1·0
·1	1·74	0·77	15th	15	1	...	1	...	9	14	...	3·0	11·5	0·5	0·5	1·5	11·5	...	0 5	*0·5
·4	0·38	0·18	2nd	6	...	...	...	1	19	5	...	2·5	15·5	...	0·5	1·5	10·5	0·5	...	...
·4	0·69	0·69	30th	1	...	...	1	...	20	3	...	0·5	23·0	...	...	1·0	5·5	...	...	...
·1	4·22	1·40	28th	10	...	...	4	...	14	6	...	2·0	16·0	0·5	...	3·5	7·0	1·5	0·5	...
·4	1·10	0·41	19th	7	...	...	1	...	18	3	...	1·5	20·5	0·5	...	2·0	6·0	...	...	0·5
·9	3·61	0·95	4th	12	...	...	1	...	14	9	...	3·0	11·5	0·5	1·0	3·5	6·5	0·0	3·5	0·5
·2	3·99	1 05	26th	13	...	...	4	...	13	13	3	2·5	7·0	1·5	4·0	2·0	10·5	0·5	1·0	2·0
·3	3·41	0·58	3rd	17	...	1	2	...	8	14	5	0·5	7·5	3·0	5·0	2·0	7·0	1·5	2·5	1·0
·6	7·78	1·53	6th	20	9	2	...	...	4	20	5	5·5	6·5	4·0	1·5	1·5	7·5	2·5	1·0	*0·5
·8	42·7	...	...	163	36	7	14	4	128	158	21	29·5	163·5	13·5	17·0	20·0	91·0	8·0	14·5	7·0

* April ½ day short. December ½ day short.

Appendix

Annual Abstract of Meteorological Observations

FORT NAPIER, NATAL. Lat. 29° 3′ S.

Month.	Mean Pressure.	Air Temperature.										Tension of Vapour.	Relative Humidity.		
		Hourly Means.		Daily Means		Means of		Abs. Min.		Abs. Max.					
		9 a.m.	9 a.m.	Simple.	Reduced.	Min.	Max.	Temp.	Day.	Temp.	Day.		Mean.	Minimum.	Day.
January	29·819	73·1	...	...	...	58·5	81·9	52·0	14th	96·5	24th	·584	68·8	49·5	24th
February	29·829	73·2	...	...	...	58·8	82·3	54·4	9th	102·5	27th	·574	65·6	35·6	27th
March	29·875	74·7	...	...	...	57·2	81·5	48·0	26th	98·8	18th	·528	59·6	41·2	17th
April	29·917	68·7	...	...	...	52·2	79·9	42·0	22nd	88·6	2nd	·458	60·2	38·2	9th
May	29·951	64·3	...	...	...	47·8	78·0	38·3	30th	88·0	14th	·397	54·8	45·3	12th
June	30·005	58·3	...	...	...	44·2	72·2	37·0	30th	83·0	9th	·292	50·5	28·0	23rd
July	30·107	55·9	...	...	...	40·6	67·4	34·0	8th	80·0	25th	·282	52·9	36·8	11th
August	29·954	60·9	...	...	...	43·5	77·9	32·2	12th	91·0	27th	·308	44·5	27·6	28th
September	29·935	63·1	...	...	...	46·7	74·6	34·8	6th	98·0	21st	·337	52·6	25·0	21st
October	29·972	65·4	...	...	...	52·8	76 2	41·0	5th	98·0	29th	·362	55·6	25·8	10th
November	29·901	67·5	...	...	...	57·4	77·9	49·8	19th	97·0	23rd	·496	70·0	50·0	25th
December	29·858	73·6	...	...	...	60·2	83·4	53·6	7th	99·7	15th	·536	64·8	32·7	10th
Mean	29·927	66·5	...	...	...	51·6	77·8	43·1	...	93·4	...	·429	58·3	36·3	...

FREETOWN, SIERRA LEONE. Lat. 8° 29′ N.

January	29·463	80·2	...	...	...	72·3	88·5	65·0	19th	96·0	17th	·877	81·3	63·0	22n
February	29·530	82·6	...	...	...	74·0	90·6	70·0	8th	94·0	24th	·882	73·6	66·0	24th
March	29·982	83·0	...	...	...	74·0	91·0	71·0	2nd	98·0	5th	·788	66·0	54·0	1st
April	29·821	83·0	...	...	...	74·4	91·9	72·0	12th	97·0	1st	·919	74·0	63·5	8th
May	29·817	82·7	...	...	...	73·1	90·5	68·0	6th	94·0	7th	·934	78·1	62·5	6th
June	29·645	81·4	...	...	...	72·3	88·5	61·0	29th	96·0	2nd	·883	78·9	72·0	26th
July	29·867	77·9	...	...	...	70·2	84·0	68·0	18th	90·0	5th	·763	78·6	73·0	1st
August	29·969	77·9	...	...	...	69·8	83·6	68·0	1st	88·0	12th	·713	73·8	61·0	8th
September	29·973	79·4	...	...	...	70·0	86·3	67·0	21st	90·0	11th	·750	72·2	57·0	8th
October	29·962	81·4	...	...	...	70·3	89·9	67·0	7th	97·0	19th	·867	75·6	64·5	9th
November	29·926	82·4	...	...	...	70·7	89·3	67·0	30th	95·0	15th	·878	76·0	66·0	22n
December	29·920	82·1	...	...	...	71·5	89·3	67·0	18th	92·0	5th	·873	76·4	54·0	25th
Mean	29·823	81·2	...	...	...	71·9	88·6	67·6	...	93·9	...	·844	75·4	63·0	...

BARBADOES (ST. ANN'S.) Lat. 13° 4′ N.

January	...	79·0	...	...	...	70·3	84·5	68·4	17th	86·0	1st	·688	68·2	57·5	18th
February	...	78·6	...	...	...	69·5	84·5	67·0	28th	85·4	13th	·625	62·4	53·0	6th
March*	30·051	79·6	...	...	...	69·2	85·4	64·0	5th	87·0	17th	·613	58·5	50·7	12th
April	30·043	81·2	...	...	...	70·7	86·5	64·0	1st	89·0	25th	·662	62·0	51·0	6th
May	30·043	83·2	...	...	...	73·0	88·0	71·0	4th	90·0	3rd	·660	57·9	49·2	11th
June	30·102	83·7	...	...	...	74·5	89·1	71·0	30th	91·0	6th	·712	59·8	49·9	1st
July	30·104	84·1	...	...	...	74·7	88·9	71·0	23rd	93·0	12th	·759	64·0	53·5	12th
August	30·011	84·2	...	...	...	74·5	88·3	70·0	20th	93·0	19th	·793	66·8	52·0	16th
September	29·978	83·2	...	...	...	74·0	87·8	72·0	3rd	92·0	4th	·811	71·6	57·1	7th
October	29·985	82·5	...	...	...	73·6	87·0	72·0	17th	89·6	26th	·800	72·4	59·4	7th
November	29·973	82·6	...	...	...	72·9	85·9	68·8	30th	87·8	23rd	·734	67·0	54·6	26th
December	29·994	80·7	...	...	...	72·5	84·2	69·0	1st	87·0	14th	·744	69·8	59·1	17th
Mean	30·008	81·9	...	...	...	72·4	86·7	69·0	...	89·2	...	·717	65·0	53·9	...

* Barometrical readings 18th to 31st only.

No. VIII.—*continued.*

taken at Foreign Stations in the Year 1875.

Long. 30° 2′ E. Height of Barometer Cistern above Sea 2,200 feet.

Mean Amount of Cloud.	Rainfall.			Weather.								Wind.								
				Number of Days of								Number of Observations under each Point.								
	Total.	Maximum.	Day.	Rain.	Snow.	Hail.	Thunder Storms.	Fog.	Clear Sky	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calms.
·1	4·19	1·32	9th	18	...	...	11	...	6	20	...	0·5	4·0	17·5	6·5	1·0	0·5	...	1·0	...
·1	2·60	0·80	15th	16	...	...	13	...	7	18	...	0·5	3·5	14·5	6·5	2·0	...	...	0·5	0. 5
·8	2·36	0·39	16th	17	...	...	9	...	8	18	...	1·5	6·0	12·5	8·5	1·0	0·5	...	1·0	...
·4	1·38	0·30	21st	7	...	...	4	...	12	13	1	1·0	4·5	16·0	6·0	1·0	0·5	1·0	...	...
·0	0·36	0·33	3rd	2	...	...	2	...	20	7	...	0·5	3·5	16·0	7·0	0·5	...	1·5	2·0	...
·0	0·48	0·27	12th	3	...	...	...	...	17	7	...	2·0	2·0	15·5	5·5	2·0	...	1·0	0·5	1·5
·2	0·22	0·20	16th	2	...	...	...	...	20	7	...	1·0	5·5	13·0	5·5	3·5	1·0	...	1·0	0·5
·6	0·00	0·00	...	...	...	...	...	...	26	3	2	0·5	4·5	15·0	6·5	0·0	1·5	1·0	1·5	1·5
·1	1·12	0·27	24th	12	...	...	6	...	10	18	...	0·5	5·0	10·0	5·0	3·0	0·5	1·5	3 0	1·5
·4	3·08	0·72	30th	18	...	...	10	...	11	19	..	0·0	5·0	13·5	5·5	4·0	0·0	0·5	1·5	1·0
.4	8·07	1·61	6th	19	...	.	11	...	7	22	...	0·0	2·0	16·5	7·5	1·0	0·0	0·0	1·5	1·5
·5	6·48	1·75	12th	14	...	...	7	...	9	18	...	0·0	6·5	19·0	5·0	0·0	0·0	0·0	0·5	0·0
.4	30·34	...	...	128	...	...	73	...	153	170	3	8·0	52·0	179·0	75·0	19·0	4·5	5·5	14·0	8·0

Long. 13° 9′ W. Height of Barometer Cistern above Sea 224 feet.

·4	0·00	0·00	...	...	...	...	...	...	8	7	...	2·5	3·5	12·5	1·0	...	...	7·5	4·0	...
·5	0·14	0·10	22nd	2	...	...	1	...	2	10	1	6 0	4·0	3·0	0·5	...	...	10·0	3·0	1·5
·0	0·12	0·12	20th	1	...	...	...	...	3	16	1	15·5	2·5	1·5	...	...	...	6·5	5·0	...
·8	2·00	1·10	13th	3	...	...	1	...	1	12	1	15·5	1·5	1·5	...	...	...	9·0	2·0	0·5
·0	6·77	1·83	4th	13	...	...	4	...	...	13	...	15·0	1·5	9·0	...	...	...	3·5	1·0	1·0
·1	17·97	3·50	28th	23	...	...	2	...	...	10	...	11·5	0·5	5·0	...	...	...	8·0	2·0	3·0
·8	32·77	3·76	30th	27	...	...	1	...	...	20	4	7·5	0·5	2·0	...	...	...	18·5	...	2·5
·8	24·45	4·13	2nd	25	...	...	...	...	...	20	...	6·0	0·0	2·0	...	...	1·0	21·5	...	0·5
·2	18·3	6·92	1st	19	...	...	2	...	...	15	...	8·5	0·0	6·5	...	...	...	13·5	.	1·5
·5	12·73	4·32	9th	16	...	...	2	...	...	9	5	8·5	0·5	11·0	...	...	0·5	8·5	0·5	1·5
·1	5·40	1·45	19th	9	...	...	1	...	...	3	5	13·5	0·5	6·5	1·0	...	...	7·5	...	1 0
·2	1·18	0·72	14th	3	...	...	2	...	2	7	7	15·5	3·5	7·0	...	...	...	4·0	...	1·0
·8	121·8	...	...	141	...	...	16	...	16	142	24	125·5	18·5	67·5	2·5	...	1·5	118·0	17·5	14·0

Long. 59° 40′ W. Height of Barometer Cistern above Sea 30 feet.

·3	4·69	0·82	5th	26	...	...	...	...	1	15	2	00·0	31·0	...	...	...	...	...	...	...
·6	1·32	0·13	6th	20	...	...	...	...	3	6	1	00·0	28·0	...	...	...	...	...	...	...
·0	0·82	0·22	1st	12	...	...	...	...	4	7	...	00·0	31·0	...	...	...	...	...	...	...
·5	1·16	0·30	10th	12	...	...	...	...	8	7	...	00·0	26·5	...	3·5	...	...	...	...	...
·3	0·59	0·29	17th	5	...	...	...	...	3	4	...	00·0	28·0	2·0	1·0	...	...	...	...	...
·4	2·14	0·82	29th	13	...	...	...	...	4	3	...	00·0	22·0	6·0	2·0	...	...	...	...	...
·9	3·04	0·40	25th	22	...	...	3	...	2	6	...	00·0	24·0	6·0	1·0	...	...	...	...	...
·7	4·90	0·72	23rd	19	...	...	...	...	5	7	1	00·0	12·0	9·0	8·0	...	...	...	...	2·0
·3	6·56†	†	9th	21	...	...	6	...	4	15	3	00·0	20·0	6·5	1·5	...	1·0	1·0	...	...
·8	7·39	1·92	21st	15	...	...	...	...	...	11	1	00·0	21·0	2·0	7·0	...	...	...	...	1·0
·2	1·91	0·78	30th	11	...	...	...	...	3	1	...	00·0	24·5	1·0	4·0	...	...	...	...	0·5
·3	4·28	1·96	1st	19	...	...	1	...	4	6	...	00·0	21·0	2·5	7·5	...	...	...	...	...
·6	38·80	...	...	195	...	...	10	...	41	88	8	00·0	289·0	35·0	35·5	...	1·0	1·0	...	3·5

† Exclusive of 18 hours on 9th September, which flooded the rain-gauge, the ground being 2 ft. 9 in. under water.

Appendi

Annual Abstract of Meteorological Observation

Newcastle, Jamaica. Lat. 18° 62′

Month.	Mean Pressure.	Air Temperature.										Tension of Vapour.	Relative Humidity.	
		Hourly Means.		Daily Means.		Means of		Abs. Min.		Abs. Max.				
		9 a.m.	9 p.m.	Simple.	Reduced.	Min.	Max.	Temp.	Day.	Temp.	Day.		Mean.	Minimum.
January	30·140	67·3	...	...	...	50·9	76·7	44·0	29th	83·0	23rd	·511	72·0	58·0
February	30·114	67·9	...	...	...	...	78·4	...	...	85·0	22nd	·586	75·5	48·5
March	30·118	66 2	...	...	...	...	79·0	...	...	85·0	22nd	·577	75·1	55·1
April	30·065	67·1	...	...	...	...	78·2	...	...	86·0	15th	·564	72·5	59·3
May	30·064	69·3	...	...	...	...	80·8	...	...	90·0	7th	·604	73·9	51·5
June	30·103	72·5	...	...	...	...	84·0	...	...	95·0	7th	·608	67·0	59·8
July	30·034	72·1	...	...	...	...	87·1	...	...	97·0	13th	·663	71·8	54·2
August	30·028	73·7	...	...	...	...	85·0	...	...	90·0	5th	·618	67·8	55·7
September	30·016	71·3	...	...	...	...	82·2	...	...	90·0	19th	·621	72·5	60·2
October	30·005	71·9	...	...	...	56·0	80·4	55·0	31st	86·0	1st	·582	68·6	56·7
November	30·068	69·4	...	...	...	...	78·6	...	...	86·0	2nd	·534	67·8	55·4
December	30·076	65·4	...	...	...	...	76·0	...	...	81·0	2nd	·536	85·5	62·0
Mean	30·069	69·5	...	...	...	...	80·5	...	...	87·8	...	·583	72·5	56·3

Up Park Camp, Jamaica. Lat. 17° 59′

January	29·992	80·0	...	...	...	64·6	94·2	63·7	23rd	94·6	30th	...	...	...
February	30·012	79·0	...	...	...	63·0	94·6	61·0	3rd	99·2	28th	...	...	...
March	30·012	83·3	...	...	...	65·0	91·9	63·0	3rd	95·2	27th	·648	56·4	49·2
April	30·080	81·6	...	...	...	64·8	95·3	59·0	21st	97·1	5th	·578	50·3	42·5
May	30·036	83·3	...	...	...	64·3	97·7	62·0	31st	99·0	23rd	·616	53·1	41·8
June	30·071	85·3	...	...	...	63·0	98·6	61·0	21st	100·0	28th	·645	53·2	41·6
July	30·026	85·7	...	...	...	64·2	99·8	62·0	24th	101·0	15th	·641	48·4	39·6
August	30·040	88·1	...	...	...	63·8	100·6	62·0	13th	102·0	23rd	·618	44·0	38·0
September ...	29·972	87·8	...	...	...	65·1	100·4	60·0	15th	104·0	3rd	·724	54·1	41·8
October	29·992	88·7	...	...	...	67·3	100·4	62·0	20th	101·0	14th	·643	45·8	40·8
November	29·999	88·6	...	...	...	64·5	100·4	62·0	25th	101·0	30th	·679	48·9	44·1
December	30·016	82·0	...	...	...	63·5	100·5	62·0	2nd	101·0	31st	·746	68·4	45·3
Mean	30·021	84·4	...	...	...	64·4	97·9	61·6	...	99·6	...	·654	52·3	42·5

Nassau, Bahamas. Lat. 25° 5′

January	30·188	74·5	...	...	...	67·7	83·9	63·5	14th	86·3	8th	·768	86·5	79·5
February	30·172	74·5	...	...	...	67·8	82·6	64·3	16th	86·8	22nd	·748	84·5	72·2
March	30·153	76·2	...	...	...	69·3	83·9	63·5	8th	88·5	14th	·782	83·0	62·8
April	30·102	75·6	...	...	...	67·3	83·2	60·5	18th	87·8	22nd	·631	69·4	49·6
May	30·089	79·8	...	...	...	71·0	86·1	67·3	15th	88·9	30th	·723	69·4	57·7
June	30·171	82·1	...	...	...	70·6	87·8	68·8	5th	91·5	24th	·724	65·4	55·9
July	30·157	84·5	...	...	...	74·1	88·5	69·1	8th	95·2	13th	·756	63·4	56·2
August	30·120	85·4	...	...	...	74·1	89·4	67·3	7th	92·2	23rd	·753	61·3	54·7
September	30·107	85·2	...	...	...	74·7	87·5	72·4	22nd	89·4	28th	·770	62·5	57·4
October	30·097	81·7	...	...	...	72·8	84·5	69·2	13th	89·1	2nd	·764	70·8	60·7
November	30·137	79·0	...	...	...	70·0	82·4	64·2	3rd	86·2	8th	715	70·6	55·4
December	30·163	74·6	...	...	...	64·7	76·0	49·2	15th	86·4	2nd	·587	66·8	52·8
Mean	30·138	79·4	...	...	...	70·3	84·6	64·9	...	89·0	...	·727	71·1	59·6

o. VIII.—*continued.*

ken at Foreign Stations in the Year 1875.

ong. 76° 42′ W. Height of Barometer Cistern above Sea 3,800 feet.

Rainfall			Weather.								Wind.								
			Number of Days of								Number of Observations under each Point.								
Total.	Maximum.	Day.	Rain.	Snow.	Hail.	Thunder Storms.	Fog.	ClearSky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N W.	Calms.
1·81	1·10	19th	6	…	…	…	…	26	2	…	…	…	No record reliable.						
1·00	0·70	9th	2	…	…	…	…	26	1	…									
5·02	2·60	26th	9	…	…	…	1	25	2	…									
4·13	0·83	16th	10	…	…	…	1	15	1	1									
9·01	2·00	21st	16	…	…	…	…	12	2	…									
5·38	1·60	12th	10	…	…	…	…	22	…	…									
4·34	1·90	28th	11	…	…	…	…	27	…	…									
3·94	0·90	9th	13	…	…	…	…	20	1	…									
7·32	7·50	13th	12	…	…	…	…	20	4	3									
0·55	6·00	23rd	11	…	…	2	…	18	3	3									
2·12	1·00	5th	6	…	…	…	…	22	…	…									
9·15	1·50	11th	16	…	…	…	…	14	1	…									
3·77	…	…	122	…	…	2	2	247	17	7									

ong. 76° 56′ W. Height of Barometer Cistern above Sea 235 feet.

Total.	Maximum.	Day.	Rain.	Snow.	Hail.	Thunder Storms.	Fog.	ClearSky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N W.	Calms.
1·22	0·85	19th	3	…	…	…	…	26	1	…	1·0	17·5	…	12·5	…	…	…	…	…
0·13	0·09	9th	2	…	…	…	…	27	…	…	0·5	13·0	0·5	14·0	…	…	…	…	…
1·86	0·81	31st	7	…	…	1	…	21	2	1	…	2·0	11·0	16·5	1·0	…	…	0·5	…
1·56	0·59	17th	6	…	…	1	…	20	3	…	…	2·0	0·5	27·5	…	…	…	…	…
6·33	2·10	20th	9	…	…	2	…	7	8	…	…	0·5	…	30·5	…	…	…	…	…
1·54	0·49	4th	5	…	…	1	…	3	4	…	0·5	0·5	1·0	27·0	1·0	…	…	…	…
1·03	0·56	8th	6	…	…	6	…	…	13	…	…	…	…	31·0	…	…	…	…	…
3·16	0·75	10th	13	…	…	14	…	1	10	2	1·0	5·0	…	25·0	…	…	…	…	…
8·55	4·00	13th	15	…	…	11	…	…	10	…	…	6·0	1·0	23·0	…	…	…	…	…
7·20	6·25	22nd	7	…	..	8	…	…	9	…	…	3·5	…	27·5	…	…	…	…	…
0·16	0·07	29th	4	…	…	…	…	3	6	…	…	…	…	30·0	…	…	…	…	…
5·98	2·25	25th	9	…	…	1	…	…	14	…	…	1·5	5·5	24·0	…	…	…	…	…
38·7	…	…	86	…	…	45	…	108	80	3	3·0	51·5	19·5	288·5	2·0	…	…	0·5	…

ng. 77° 21′ W. Height of Barometer Cistern above Sea 44 feet.

Total.	Maximum.	Day.	Rain.	Snow.	Hail.	Thunder Storms.	Fog.	ClearSky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N W.	Calms.
0·52	0·18	31st	7	…	…	1	…	5	4	…	0·5	11·5	1·5	14·0	1·0	0·0	…	1·5	1·0
1·97	0·90	5th	5	…	…	…	…	5	6	…	0·0	8·5	1·0	13·5	…	0·5	…	3·0	1·5
0·64	0·56	26th	3	…	…	…	…	3	5	…	4·0	7·5	3·5	12·0	..	0·5	…	3·5	…
3·30	1·06	23rd	9	…	…	2	…	3	5	…	3·5	6·5	4·5	7·5	1·5	…	4·0	2·5	…
6·61	1·77	5th	11	…	…	5	…	3	7	…	2·0	2·5	8·5	7·0	3·5	2·5	2·0	2·5	0·5
4·46	1·90	30th	9	…	…	6	…	2	4	…	2·5	5·0	15·0	5·5	2·0	…	…	…	…
4·52	2·09	1st	12	…	…	1	…	2	12	…	0·0	4·5	9·5	13·5	…	…	…	…	3·5
4·52	1·20	7th	11	…	…	6	…	3	5	…	0·0	5·5	7·5	14·0	…	1·5	1·0	…	1·5
1·85	0·33	22nd	13	…	…	4	…	2	7	3	0·0	10·5	4·0	11·0	1·0	2·0	1·5	…	…
9·40	2·15	18th	15	…	…	3	…	…	13	1	1·5	11·0	2·5	8·0	1·0	1·5	2·5	3·0	…
3·62	1·86	12th	7	…	…	…	…	3	5	…	1·0	11·0	6·0	6·0	0·5	4·0	0·5	1·0	…
0·70	0·37	25th	3	…	…	1	…	2	6	1	2·0	10·5	5·5	1·0	2·0	3·5	3·0	3·5	…
2·1	…	…	105	…	…	29	…	33	79	5	17·0	94·5	69·0	113·3	12·5	16·0	14·5	20·5	8·0

Appendix

Annual Abstract of Meteorological Observations

BERMUDA. Lat. 32° 17′ N.

Month.	Mean Pressure.	Air Temperature.										Tension of Vapour.	Relative Humidity.		
		Hourly Means.		Daily Means.		Means of		Abs. Min.		Abs. Max.			Mean.	Minimum	
		9 a.m.	9 p.m.	Simple.	Reduced.	Min.	Max.	Temp.	Day.	Temp.	Day.				Day.
January	30·216	64·7	...	...	...	57·8	70·6	50·0	2nd	78·0	8th	·464	73·0	53·2	2n
February	30·172	63·9	...	...	...	56·4	69·6	44·4	11th	77·8	4th	·459	75·0	50·6	13t
March	30·163	66·2	...	...	...	54·4	74·2	40·6	22nd	84·0	29th	·430	63·6	37·8	26t
April	29·835	66·5	...	...	...	56·4	72·2	42·0	20th	80·0	17th	·480	71·0	53·5	20t
May	30·126	73·3	...	...	...	64·8	78·6	57·7	9th	83·4	23rd	·660	78·5	57·8	10t
June	30·210	76·8	...	...	...	68·2	82·0	61·1	3rd	87·2	25th	·686	71·0	56·5	28t
July	30·187	81·1	...	...	...	73·4	85·8	67·7	4th	88·8	16th	·784	70·8	49·8	21s
August	30·190	85·0	...	...	...	76·2	90·2	71·2	31st	94·8	16th	·812	65·6	59·0	16t
September	30·079	80·8	...	...	...	72·9	85·8	67·2	24th	91·8	2nd	·774	71·2	52·5	9t
October	30·052	77·8	...	...	...	70·5	81·3	60·8	30th	89·0	2nd	·707	74·2	56·1	26t
November	30·068	70·0	...	...	...	64·0	74·6	56·6	20th	81·1	8th	·502	67·4	54·5	10t
December	30·092	65·4	...	...	...	59·6	70·6	50·8	21st	80·5	28th	·446	69·3	58·6	19t
Mean	30·116	72·6	...	...	...	64·5	77·9	55·8	...	84·7	...	·600	70·9	53·3	...

SINGAPORE. Lat. 1° 16′ N.

January	29·316	82·4	...	...	...	70·7	...	68·3	24th	...	...	·973	85·0	75·0	9t
February	29·319	81·3	...	...	...	70·0	...	67·4	3rd	...	...	1·010	90·0	85·0	1st
March	29·316	82·7	...	...	...	70·8	...	69·4	13th	...	...	·995	89·5	81·8	7t
April	29·288	84·1	...	...	...	72·0	...	69·5	11th	...	...	1·069	88·6	82·1	9t
May	29·293	84·1	...	...	...	72·0	...	69·5	3rd	...	...	1·049	88·0	85·8	12t
June	29·309	83·1	...	...	...	71·5	...	67·5	25th	...	...	1·109	85 5	79·8	29t
July	29·310	84·0	...	...	...	71·9	...	67·2	16th	...	...	1·022	83·5	80·8	25t
August	29·314	84·0	...	...	...	73·0	...	69·4	4th	...	...	1·026	84·2	77·8	17t
September	29·321	81·0	...	...	...	73·3	...	68·4	13th	...	...	1·017	83·7	78·9	26t
October	29·310	84·2	...	...	...	72·7	...	69·4	27th	...	...	1·026	83·6	79·1	16t
November	29·319	83·7	...	...	...	71·6	...	68·5	19th	...	...	·986	85·5	78·0	29t
December	29·317	81·0	...	...	...	70·1	...	67·4	21st	...	...	·926	85·0	73·6	23r
Mean	29·311	83·0	...	...	...	71·6	...	68·5	...	...	...	1·017	86·0	79·8	...

HONG KONG. Lat. 22° 16′ N.

January	30·052	56·1	...	...	...	52·9	62·3	43·6	22nd	68·4	9th	.357	73·0	55·9	29t
February	30·005	59·7	...	...	...	56·2	66·6	48·1	12th	73·8	10th	·435	79·2	62·7	5t
March	29·948	66·9	...	...	...	61·7	74·7	48·2	3rd	85·4	26th	·565	80·0	44·8	31st
April	29·877	71·4	...	...	...	66·4	78·2	58·6	1st	89·5	24th	·615	77·2	43·1	22n
May	29·822	81·1	...	...	...	75·0	90·0	66·3	1st	101·5	20th	·836	73·2	46·1	7t
June	22·722	85·2	...	...	...	79·9	91·7	74·0	9th	100·0	24th	·908	71·6	59·3	23r
July	29·635	85·6	...	...	...	80·6	92·1	75·5	24th	99·0	6th	·969	75·8	59·5	7t
August	29·648	86·6	...	...	...	79.5	95·3	76·2	25th	100·2	11th	·882	65·1	39·8	33r
September	29·723	82·3	...	...	...	77·4	88·4	74·0	15th	94·8	10th	·840	72·8	58·9	20t
October	29·829	77·9	...	...	...	72·8	83·8	67·2	12th	92·5	3rd	·644	64·4	52·1	15t
November	29·996	70·2	...	...	...	65·6	76·1	61·2	14th	80·5	14th	·539	68·2	55·8	13t
December	30·191	57·9	...	...	...	53·2	64·6	40·5	19th	71·3	10th	·365	75·9	65·0	22n
Mean	29·871	73·4	...	...	...	68·4	80·3	61·1	...	88·1	...	·663	73·0	53·6	...

No. VIII.—*continued.*

taken at Foreign Stations in the Year 1875.

Long. 64° 47′ W. Height of Barometer Cistern above Sea 151 feet.

Mean Amount of Cloud.	Rainfall.			Weather.								Wind.								
				No. of Days of								Number of Observations under each Point.								
	Total.	Maximum.	Day.	Rain.	Snow.	Hail.	Thunder-storms.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calms.
...	2·29	0·43	13th	17	...	...	...	...	1	19	...	2·5	5·0	0·0	0·5	0·5	14·0	1·5	6·0	1·0
·7	2·21	0·51	18th	15	...	...	...	...	3	18	2	2·0	4·0	0·5	4·0	1·0	9·0	1·5	4·5	1·5
·4	1·53	0·56	30th	10	...	...	...	...	7	15	...	5·5	2·5	2·0	1·0	0·5	14·0	2·0	3·5	0·0
·0	4·09	1·29	29th	10	...	...	2	...	6	13	...	2·0	7·0	0·0	0·5	0·5	11·0	5·0	4·0	0·0
·0	5·91	1·88	20th	10	...	...	1	...	9	16	...	2·0	4·0	0·0	3·5	2·0	15·5	3·5	0·5	0·0
·0	2·07	0·43	20th	12	...	...	...	...	9	10	...	1·0	9·0	0·5	1·0	0·0	14·0	4·0	0·5	0·0
·0	4·18	1·76	24th	8	...	...	...	...	7	10	...	1·0	2·5	0·0	5·0	1·0	11·5	3·0	7·0	0·0
·5	2·57	1·50	31st	9	...	...	...	...	11	6	...	1·0	1·0	0·5	13·5	5·0	6·5	1·0	2·5	0·0
·0	6·26	2·00	23rd	16	...	...	2	...	9	8	3	2·5	4·5	0·0	3·5	0·5	13·5	2·0	2·0	1·5
·5	7·67	2·00	12th	19	...	...	...	...	9	13	2	5·0	1·5	1·5	5·0	1·5	13·0	0·0	3·0	0·5
·7	1·87	0·32	30th	13	...	...	...	...	8	12	5	2·5	6·0	2·0	2·5	1·0	8·0	3·0	4·5	0·5
·5	3·32	1·55	17th	10	...	...	1	...	6	16	3	3·5	3·5	1·0	1·0	0·5	7·5	3·0	4·5	6·5
·3	43·97	...	...	149	...	...	6	...	85	156	15	30·5	50·5	8·0	41·0	14·0	137·5	29·5	42·5	11·5

Long. 105° 31′ E. Height of Barometer Cistern above Sea 110 feet.

·6	2·54	1·18	14th	12	...	...	3	...	6	6	...				No records.					
·3	5·43	2·73	14th	14	...	...	3	...	7	6	1	...	28	...	...	...	...	...	...	...
·6	18·69	2·96	7th	28	...	...	14	...	5	13	...	...	31	...	...	...	...	...	...	...
·9	6·99	1·43	22nd	21	...	...	7	...	6	4	...	...	...	...	...	...	30	...	...	...
·2	4·65	1·17	31st	23	...	...	6	...	7	5	...	...	...	...	...	...	31	...	...	...
·7	7·58	1·49	28th	19	...	...	6	...	10	8	...	...	...	...	...	...	30	...	...	...
·8	3·90	1·25	15th	11	...	...	4	...	8	2	...	...	...	...	...	...	31	...	...	...
·1	7·03	1·90	14th	13	...	...	3	...	14	3	...	...	...	...	...	...	31	...	...	...
·4	8·03	2·03	21st	13	...	...	7	...	10	2	...	...	...	...	...	...	30	...	...	...
·5	8·85	3·05	27th	19	...	...	5	...	13	3	...	...	...	...	...	...	31	...	...	...
·5	9·42	1·35	23rd	22	...	...	8	...	9	2	...	...	...	...	...	...	30	...	...	...
·0	7·00	2·03	16th	18	...	...	6	...	7	4	...	...	31	...	...	...	...	...	...	...
·8	90·11	...	...	213	...	...	72	...	102	58	·1	...	90	...	...	...	244	...	...	...

Long. 114° 9′ E. Height of Barometer Cistern above Sea 43 feet.

·8	3·46	0·82	15th	12	...	...	...	..	12	17	...	2·5	10·0	7·0	0·5	...	...	2·5	5·0	3·5
·0	0·37	9·26	26th	4	...	..	...	2	8	18	...	1·0	6·5	15·0	0·5	...	...	1·5	1·5	2·0
·8	2·98	2·02	29th	6	...	...	1	...	6	18	...	1·0	2·5	16·5	2·5	...	...	3·0	0·5	5·0
·2	6·74	1·77	15th	12	...	...	...	1	7	21	...	...	4·0	16·0	1·0	0·5	...	1·0	3·5	4·0
·4	14·40	7·92	31st	7	...	...	2	...	5	12	1	...	...	15·5	0·5	...	1·5	9·0	1·5	3·0
·3	14.57	4·92	10th	21	...	...	2	...	2	13	...	...	...	11·0	3·0	3·5	3·0	9·0	...	0·5
·2	18·36	4·50	22nd	19	...	...	3	...	4	16	1	0·0	0·0	13·0	1·5	2·5	5·0	9·0	...	0·0
·0	2·50	1·05	31st	8	...	...	3	...	17	5	...	...	1·0	6·5	1·5	3·0	5·5	6·5	...	7·0
·5	14·06	4·15	17th	16	...	...	2	...	5	12	...	...	3·0	21·0	0·0	0·5	1·5	0·0	...	4·0
·0	4·24	1·24	1st	11	...	...	...	...	18	8	...	3·5	5·0	18·5	0·0	0·5	1·0	0·5	...	2·0
·7	0·35	0·35	30th	1	...	...	...	...	15	7	...	1·5	5·5	20·0	0·0	0·0	0·5	0·0	...	2·5
·5	2·94	1·40	26th	6	...	...	...	...	18	8	...	6·0	9·0	11·5	0·5	0·0	0·5	1·0	1·5	1·0
·6	84·9	...	...	123	...	...	13	3	117	155	2	15·5	46·5	171·5	11·5	10·5	18·5	43·0	13·5	34·5

Appendix

Summary of Results of Meteorological Observations

	Stations, with their Height above the Sea.		Mean Pressure.*	Air Temperature.							Tension of Vapour.	Relative Humidity.		
				Hourly Means.	Means of		Abs. Min.		Abs. Max.				Min.	
				9 a.m.	Min.	Max.	Temp.	Day.	Temp.	Day.		Mean.		Day.
Mediterranean.	Gibraltar	ft. 53	30·051	64·9	61·4	72·5	42·0	1 Jan.	91·0	12 Aug.	·452	68·5	27·3	23 Jun
	Malta	70	29·996	67·9	61·9	71·3	43·3	3 Feb.	95·0	8 July	·511	70·9	31·0	17 Jun
	Scutari	60	29·981	56·9	48·2	65·6	23·6	31 Dec.	96·6	24 June	·381	71·7	41·3	16 Oct.
African.	Natal	2,200	29·927	66·5	51·6	77·8	32·2	12 Aug.	102·5	27 Feb.	·429	58·3	25·0	21 Sept
	Sierra Leone... ...	224	29·823	81·2	71·9	88·6	61·0	29 June	98·0	5 Mar.	·844	75·4	54·0	25 Dec.
America & W. Indian.	Barbadoes	30	30·008	81·9	72·4	86·7	64·0	5 Mar.	93·0	19 Aug.	·717	65·0	49·2	11 May
	Newcastle, Jamaica...	3,800	30·069	69·5	...	80·5	...	...	97·0	13 July	·583	72·5	48·5	4 Feb.
	Up Park Camp, Jamaica... ...	235	30·021	84·4	64·4	97·9	59·0	21 April	104·0	3 Sept.	·654	52·3	38·0	24 Aug
	Nassau, Bahamas ...	44	30·138	79·4	70·3	84·6	49·2	15 Dec.	95·2	13 July	·727	71·1	49·6	19 Apri
	Bermuda	151	30·116	72·6	64·5	77·9	40·6	22 Mar.	94·8	16 Aug.	·600	70·9	37·8	26 Mar.
	Singapore	110	29·311	83·0	71·6	...	67·2	16 July	..	...	1·017	86·0	73·6	23 Dec
	Hong Kong	43	29·871	73·4	68·4	80·3	40·5	19 Dec.	101·5	20 May	663	73·0	39·8	23 Aug.

* The observations are reduced to Sea-level, and to 32° Fahrenheit.

o. VIII.—*continued.*

ken at Foreign Stations in the year 1875.

	Rainfall.			Weather.								Wind.										
				No. of days of								No. of Observations under each point.										
	Total.	Max.	Day.	Rain.	Snow.	Hail.	Thunder Storms.	Fog.	Clear Sky.	Overcast.	Gales.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calms.	Latitude.	Longitude.
																					° ′	° ′
·2	34·30	6·38	24 Nov.	71	...	...	4	1	174	115	15	3·5	128·5	47·5	4·0	0·5	92·0	42·5	45·0	1·5	36 6 N.	5 20 W.
·4	27·24	2·50	9 Oct.	85	...	...	4	...	136	109	1	1·5	95·5	1·0	71·5	0·5	44·0	0·5	150·5	0·0	35 53 N.	14 30 E:
·8	42·70	2·20	22 Mar.	163	36	7	14	4	128	158	21	29·5	163·5	13·5	17·0	20·0	91·0	8·0	14·5	7·0	41 N.	29 3 E.
·4	30·34	1·75	12 Dec.	128	...	...	73	...	153	170	3	8·0	52·0	179·0	75·0	19·0	4·5	5·5	14·0	8·0	29 3 S.	30 2 E.
·8	121·8	6·92	1 Sept.	141	...	...	16	...	16	142	24	125·5	18·5	67·5	2·5	0·0	1·5	118·0	17·5	14·0	8 29 N.	13 9 W.
·6	38·80	*	9 Sept.	195	...	...	10	...	41	88	8	0·0	289·0	35·0	35·5	0·0	1·0	1·0	0·0	3·5	13 4 N.	59 40 W.
·0	73·77	7·50	13 Sept.	122	...	...	2	2	247	17	7	†	†	†	†	†	†	†	†	†	18 62 N.	76 42 W.
·2	38·70	6·25	22 Oct.	86	...	...	45	...	108	80	3	3·0	51·5	19·5	288·5	2·0	0·0	0·0	0·5	0·0	17 59 N.	76 56 W.
·9	42·10	2·15	18 Oct.	105	...	...	29	...	33	79	5	17·0	94·5	69·0	113·0	12·5	16·0	14·5	20·5	8·0	25 5 N.	77 21 W.
·3	43·97	2·00	23 Sept.	149	...	...	6	...	85	156	15	30·5	50·5	8·0	41·0	14·0	137·5	29·5	42·5	11·5	32 17 N.	64 47 W.
·8	90·11	3·05	27 Oct.	213	...	...	72	...	102	58	1	0·0	90·0	0·0	0·0	0·0	244·0	0·0	0·0	0·0	1 16 N.	105 31 E.
·6	84·90	7·92	31 May	123	...	...	13	3	117	155	2	15·5	46·5	171·5	11·5	10·5	18·5	43·0	13·5	34·5	22 16 N.	114 9 E.

* *See* Abstract Barbadoes.

† Not reliable.

APPENDIX No. IX.

THE ALEXANDER MEMORIAL FUND.

Committee.

Sir William M. Muir, K.C.B., M.D., Hon. Physician to the Queen, Director-General, *President*.

Sir T. Galbraith Logan, K.C.B., M.D., Hon. Physician to the Queen.

Surgeon-General T. G. Balfour, F.R.S.

Surgeon-General T. Longmore, C.B., Hon. Surgeon to the Queen, Professor of Military Surgery.

Deputy Surgeon-General J. A. Bostock, C.B., M.D., Hon. Surgeon to the Queen.

Deputy Surgeon-General W. J. Fyffe, M.D.

Surgeon-Major F. S. B. F. De Chaumont, Professor of Military Hygiene.

R. Lawson, Esq., M.D., Inspector-General of Hospitals.

Surgeon-General W. Rutherford, C.B., M.D.

Surgeon-General W. Munro, C.B., M.D.

Deputy Surgeon-General Sir Anthony D. Home, K.C.B., *V.C.*

Surgeon-Major Frederick Robinson, M.D., Scots Fusilier Guards.

At a meeting of the Committee, held on the 8th of April 1876, at the Office of the Army Medical Department, 6, Whitehall Yard, it was determined that the Alexander Memorial Prize of 50*l.*, and a Gold Medal of the value of 10*l.*, be offered for the best Essay—

"On the influence of drinking-water in originating or propagating enteric "fever, diarrhœa, dysentery, *and*[*] cholera: to be illustrated, as far as possible "by instances which have come under the personal observation of the author."

The Essay to be legibly and clearly written, superscribed with a brief motto, and accompanied by a sealed envelope similarly superscribed, containing the name and address of the author.

Essays to be despatched to the President, Alexander Memorial Fund Committee, on or before the 31st December 1878.

The competition to be limited to Executive Medical Officers of the Army on full-pay.

The relative merits of the Essays to be determined by Assessors selected by the Committee.

The prize to be awarded to the writer of the best Essay offered, without reference to the number of competitors, provided the writer has complied with the prescribed conditions.

---

[*] Not *or* cholera, as was previously announced.

GENERAL ANNUAL RETURN

OF

THE BRITISH ARMY

FOR THE YEAR

1875,

WITH ABSTRACTS FOR THE YEARS 1861 TO 1875 INCLUSIVE.

PREPARED BY ORDER OF

HIS ROYAL HIGHNESS
THE FIELD MARSHAL COMMANDING-IN-CHIEF

FOR THE INFORMATION OF

THE SECRETARY OF STATE FOR WAR.

HORSE GUARDS, WAR OFFICE, 31ST JANUARY 1877.

Presented to both Houses of Parliament by Command of Her Majesty.

LONDON:
PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,
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FOR HER MAJESTY'S STATIONERY OFFICE.

1876.

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PART I.—EFFECTIVES, ESTABLISHMENTS, AND DISTRIBUTION.

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Months.	ALL RANKS.										
	Household Cavalry.	Cavalry of the Line.	Royal Horse Artillery.	Royal Artillery.	Royal Engineers.	Foot Guards.	Infantry of the Line.	Colonial Corps.	Army Service Corps.	Army Hospital Corps.	All Arms.
1st January 1875 -	1,283	16,060	5,681	28,777	5,627	5,633	116,727	2,376	2,988	1,280	186,432
1st February ,, -	1,281	16,102	5,648	28,867	5,662	5,584	116,913	2,360	3,000	1,283	186,700
1st March ,, -	1,268	16,082	5,655	28,869	5,667	5,552	116,472	2,320	3,004	1,288	186,177
1st April ,, -	1,272	16,040	5,664	28,830	5,653	5,540	115,975	2,317	3,005	1,312	185,608
1st May ,, -	1,273	16,041	5,595	28,730	5,642	5,519	115,319	2,310	3,010	1,325	184,764
1st June ,, -	1,277	16,039	5,466	28,743	5,622	5,527	114,876	2,299	2,994	1,317	184,160
1st July ,, -	1,283	16,071	5,478	28,654	5,657	5,561	114,518	2,291	2,997	1,315	183,825
1st August ,, -	1,288	16,165	5,490	28,708	5,642	5,542	114,356	2,290	3,002	1,313	183,796
1st September ,, -	1,289	16,187	5,461	28,769	5,637	5,536	114,329	2,276	3,003	1,304	183,791
1st October ,, -	1,287	16,152	5,416	28,627	5,643	5,534	114,326	2,261	3,006	1,291	183,543
1st November ,, -	1,291	16,164	5,350	28,504	5,651	5,528	114,468	2,244	3,003	1,279	183,482
1st December ,, -	1,293	16,242	5,334	28,349	5,663	5,539	114,807	2,234	3,010	1,274	183,745
	15,385	193,345	66,238	344,427	67,766	66,595	1,383,086	27,578	36,022	15,581	2,216,023
Average during 1875	1,282	16,112	5,520	28,702	5,647	5,550	115,257	2,298	3,002	1,299	184,669
	17,394		34,222			127,406					

TABLE 2.—EFFECTIVE STRENGTH of the Regular Army, *by Ranks*, on the first day of each month during the year 1875, and the average strength during the year.

Months.	ALL ARMS.				
	Officers.	Serjeants and Farriers.	Trumpeters, Drummers, and Buglers.	Rank and File.	All Ranks.
1st January 1875	8,156	12,485	3,643	162,148	186,432
1st February „	8,117	12,503	3,651	162,429	186,700
1st March „	8,152	12,486	3,640	161,899	186,177
1st April „	8,156	12,481	3,649	161,322	185,608
1st May „	8,110	12,510	3,646	160,498	184,764
1st June „	8,057	12,513	3,629	159,961	184,160
1st July „	8,026	12,524	3,628	159,647	183,825
1st August „	7,954	12,504	3,638	159,700	183,796
1st September „	8,036	12,478	3,647	159,630	183,791
1st October „	8,048	12,557	3,637	159,301	183,543
1st November „	8,050	12,605	3,633	159,194	183,482
1st December „	8,113	12,608	3,636	159,388	183,745
	96,975	150,254	43,677	1,925,117	2,216,023
Average during 1875	8,082	12,521	3,640	160,426	184,669
			176,587		

TABLE 3.—AVERAGE STRENGTH of the Army in England, Scotland, Ireland, and Abroad, during 1875, distinguishing the number of Officers and Men, and the different arms of the service.

	Cavalry.		Royal Artillery.		Royal Engineers.		Infantry, &c., &c.		All Arms.		Total.
	Officers.	Men.	Officers.	Men.	Officers.	Men.	Officers.	Men.	Officers.	Men.	
England and Wales -	420	8,216	577	15,054	375	3,188	1,799	39,850	3,171	66,308	69,479
Scotland - - -	27	557	12	302	10	140	169	2,956	218	3,955	4,173
Ireland - - -	185	3,679	91	2,263	29	303	697	16,294	1,002	22,539	23,541
Total at Home - -	632	12,452	680	17,619	414	3,631	2,665	59,100	4,391	92,802	97,193
Abroad - -	234	4,076	706	15,217	406	1,196	2,345	63,296	3,691	83,785	87,476
General Average during 1875 -	866	16,528	1,386	32,836	820	4,827	5,010	122,396	8,082	176,587	184,669
	17,394		34,222		5,647		127,406		184,669		

N.B.—Regiments on passage out and home are included with the number "ABROAD."

TABLE 4.—DISTRIBUTION of the Army, according to the latest returns received on the 1st January 1876, showing the Effectives and Establishment of each Arm.

	OFFICERS AND MEN.										
	Household Cavalry.	Cavalry of the Line.	Royal Horse Artillery.	Royal Artillery.	Royal Engineers.	Foot Guards.	Infantry of the Line.	West India and Colonial Corps.	Army Service Corps.	Army Hospital Corps.	All Arms.
AT HOME:—											
England - - - -	1,286	7,474	2,284	12,445	3,553	4,753	33,355	—	2,339	764	68,253
Jersey - - - - -	—	—	—	173	2	—	626	—	1	11	813
Guernsey and Alderney -	—	—	—	321	1	—	568	—	—	10	900
Scotland - - - -	—	583	—	305	150	—	2,792	—	14	51	3,895
Ireland - - -	—	4,032	645	1,683	301	787	14,265	—	513	188	22,414
Total - -	1,286	12,089	2,929	14,927	4,007	5,540	51,606	—	2,867	1,024	96,275
ON PASSAGE HOME FROM INDIA -	—	361	—	—	—	—	—	—	—	—	361
ON PASSAGE FROM MALTA TO CHINA - - -	—	—	—	—	—	—	835	—	—	—	835
IN THE COLONIES (including Drafts on passage out) -	—	—	—	3,589	1,329	—	15,838	2,231	138	248	23,373
EAST INDIES (including Drafts on passage out):—											
Bengal - - - -	—	2,907	1,744	4,940	213	—	30,939	—	—	—	40,743
Bombay - - -	—	482	317	2,360	61	—	7,942	—	—	—	11,162
Madras - - - - -	—	459	347	2,525	55	—	7,814	—	—	—	11,200
Total - -	—	3,848	2,408	9,825	329	—	46,695	—	—	—	63,105
Total Effectives - -	1,286	16,298	5,337	28,341	5,665	5,540	114,974	2,231	3,005	1,272	183,949
Total Establishment - -	1,302	15,984	5,333	29,563	5,697	5,950	115,587	2,482	3,014	1,337	186,249

Table 5.—Effective Strength and Establishment of each arm of the service, in Rank and File, on the 1st January 1876, and the number supernumerary or required to complete the Establishment.

Corps.	Effectives.	Establishment.	Wanting to complete.	Supernumeraries.
Household Cavalry - -	1,020	1,029	9	—
Cavalry of the Line - -	13,953	13,597	—	356
Royal Horse Artillery - -	4,708	4,706	—	2
Royal Artillery - - -	24,817	25,967	1,150	—
Royal Engineers - -	4,144	4,162	18	—
Foot Guards - - -	4,840	5,250	410	—
Infantry of the Line - -	100,754	100,120	—	634
Colonial Corps - -	1,909	2,146	237	—
Army Service Corps - -	2,502	2,506	4	—
Army Hospital Corps - -	993	1,054	61	—
General Total - -	159,640	160,537	1,889	992
			897	

TABLE 6.—DISTRIBUTION of the Regiments and Depôts of Cavalry and Infantry, Batteries of Artillery, Companies of Engineers, &c., &c., on the 1st January 1876.

	Household Cavalry.	Cavalry of the Line.		Royal Horse Artillery.	Royal Artillery.			Royal Engineers.		Foot Guards.	Infantry of the Line.			West India and Colonial Corps.	Army Service Corps.
	Regi-ments.	Regi-ments.	Depôts.	Batteries.	Field Batteries.	Garrison Batteries.	Depôt Batteries.	Troops.	Com-panies.	Batta-lions.	Batta-lions.	Brigade Depôts.	Depôts attached to Regts.	Corps.	Compa-nies.
AT HOME:—															
England	3	11	9	13	34	28	10	3	23	6	43	25	21	—	18
Jersey	—	—	—	—	—	1	—	—	—	—	1	—	—	—	—
Guernsey and Alderney	—	—	—	—	—	2	—	—	—	—	1	—	—	—	—
Scotland	—	1	—	—	1	—	—	—	1	—	3	8	1	—	—
Ireland	—	7	—	4	7	3	—	—	3	1	20	4	13	—	4
Total	3	19	9	17	42	34	10	3	27	7	68	37	35	—	22
ON PASSAGE HOME FROM INDIA	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
ON PASSAGE FROM MALTA TO CHINA	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
IN THE COLONIES:—															
Gibraltar	—	—	—	—	—	7	—	—	4	—	5	—	—	—	1
Malta	—	—	—	—	—	7	—	—	2	—	5	—	—	1	
West Africa Settlements	—	—	—	—	—	—	—	—	—	—	—	—	—	6 Comps.	
Cape of Good Hope	—	—	—	—	—	1	—	—	—	—	2 &4 Comps.	—	—	—	
St. Helena	—	—	—	—	—	1	—	—	1	—	—	—	—	—	
Mauritius	—	—	—	—	—	1	—	—	—	—	4 Comps.	—	—	—	
Ceylon and Labuan	—	—	—	—	—	2	—	—	—	—	1	—	—	1	
China and Straits Settlements	—	—	—	—	—	3	—	—	—	—	2 &6 Comps.	—	—	1	
Dominion of Canada	—	—	—	—	—	3	—	—	1	—	2	—	—	—	
Bermuda	—	—	—	—	—	2	—	—	4	—	2	—	—	—	
West Indies	—	—	—	—	—	2	—	—	—	—	1	—	—	1 & 3 Comps.	
Fiji Islands	—	—	—	—	—	—	—	—	1	—	—	—	—	—	
On Particular Service	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Total	—	—	—	—	—	29	—	—	13	—	22	—	—	5	1
EAST INDIES:—															
Bengal	—	6	—	11	22	15	—	—	1	—	32 &2 Comps.	—	—	—	—
Bombay	—	1	—	2	10	6	—	—	1	—	9	—	—	—	—
Madras	—	1	—	2	11	7	—	—	1	—	9	—	—	—	—
Total	—	8	—	15	43	28	—	—	3	—	50	—	—	—	—
General Total	3	28	9	32	85	91	10	3	43	7	141	37	35	5	23

to 1875, distinguishing the number of Officers and Men.

Year.	Officers.					Non-Commissioned Officers and Men.					General Total.
	England and Wales.	Scotland.	Ireland.	Abroad.	Total.	England and Wales.	Scotland.	Ireland.	Abroad.	Total.	
1861	3,095	191	1,029	4,994	9,309	65,358	4,116	23,996	118,825	212,295	221,604
1862	3,090	186	998	5,847	10,121	60,691	3,638	21,069	127,320	212,718	222,839
1863	3,062	197	1,095	6,455	10,809	57,004	3,602	20,302	127,889	208,797	219,606
1864	3,052	195	1,079	6,475	10,801	54,783	3,491	20,121	125,662	204,057	214,858
1865	3,198	185	1,074	6,372	10,829	56,584	3,444	20,017	118,003	198,048	208,877
1866	3,021	180	1,269	6,252	10,722	53,456	3,229	22,969	111,265	190,919	201,641
1867	3,094	173	1,209	6,078	10,554	57,250	3,344	22,537	106,650	189,781	200,335
1868	3,345	214	1,095	5,738	10,392	60,595	3,922	20,462	101,529	186,508	196,900
1869	3,422	181	1,133	5,473	10,209	58,089	3,108	20,345	94,917	176,459	186,668
1870	3,352	192	1,278	4,805	9,627	58,024	3,278	23,546	85,969	170,817	180,444
1871	3,495	169	1,216	4,314	9,194	71,147	3,293	26,437	82,594	183,471	192,665
1872	3,480	171	1,197	4,144	8,992	69,994	3,298	26,014	83,709	183,015	192,007
1873	3,487	207	1,121	3,877	8,692	67,637	3,741	24,390	83,919	179,687	188,379
1874	3,317	208	996	3,763	8,284	67,577	4,000	21,537	84,991	178,105	186,389
1875	3,171	218	1,002	3,691	8,082	66,308	3,955	22,539	83,785	176,587	184,669

N.B.—Regiments on passage out and home are included with the numbers "ABROAD."

TABLE 8.—EFFECTIVE STRENGTH, according to the latest returns received, on the 1st January in each year from 1861 to 1876, showing the number of each arm.

Years.	All Ranks.													
	House-hold Cavalry.	Cavalry of the Line.	Royal Horse Artillery.	Royal Artillery.	Royal Engi-neers.	Military Train.	Foot Gds.	Infantry of the Line.	Colonial Corps.	Army Hospital Corps.	Commt. Staff Corps.	Military Store Staff Corps.	Army Service Corps.	All Arms.
1861	1,298	18,012	2,591	24,257	4,364	2,406	6,158	158,343	8,677	1,062	—	—	—	227,168
1862	1,312	16,688	2,361	26,972	4,662	2,014	6,269	146,006	8,274	875	439	—	—	215,872
1863	1,305	17,989	5,431	31,240	4,680	1,930	6,273	144,083	8,472	849	529	—	—	222,781
1864	1,306	17,806	5,742	30,579	5,108	1,840	6,201	138,351	8,447	865	546	—	—	216,791
1865	1,306	16,995	5,608	29,126	5,074	1,832	6,070	133,359	8,139	891	568	—	—	213,968
1866	1,299	16,714	5,350	27,631	4,935	1,815	5,788	133,241	7,065	932	586	—	—	205,356
1867	1,314	16,438	5,495	27,305	5,065	1,814	5,908	128,103	7,103	970	575	197	—	200,287
1868	1,323	16,356	5,452	27,991	4,985	1,812	5,883	127,252	7,113	979	575	294	—	200,015
1869	1,306	16,245	5,578	27,503	5,026	1,783	5,939	123,515	6,764	980	572	395	—	195,606
1870	1,310	15,600	5,340	25,864	4,995	1,442	5,929	116,406	5,578	899	563	388	—	184,314
1871	1,313	15,743	5,483	25,758	5,381		6,304	120,877	3,457	838	—	—	2,592	187,746
1872	1,290	16,414	5,726	27,701	5,502	—	6,521	122,875	3,452	760	—	—	2,431	192,672
1873	1,296	16,377	5,590	28,891	5,602	—	6,298	120,367	3,329	687	—	—	2,978	191,415
1874	1,280	16,092	5,709	28,294	5,649	—	5,822	117,441	2,352	1,046	—	—	2,950	186,635
1875	1,283	16,060	5,681	28,777	5,627	—	5,633	116,727	2,376	1,280	—	—	2,988	186,432
1876	1,286	16,298	5,337	28,341	5,665	—	5,540	114,974	2,231	1,272	—	—	3,005	183,949

TABLE 9.—EFFECTIVE STRENGTH on the 1st January in each year from 1861 to 1876, showing the different ranks.

Years.	Officers.	Serjeants and Farriers.	Trumpeters, Drummers, and Buglers.	Rank and File.	All Ranks.
1861	9,246	12,792	4,115	201,015	227,168
1862	9,306	12,444	4,154	189,968	215,872
1863	10,551	13,708	4,500	194,022	222,781
1864	10,777	13,425	4,564	188,025	216,791
1865	10,797	13,432	4,592	185,147	213,968
1866	10,807	13,282	4,536	176,731	205,356
1867	10,619	13,146	4,443	172,079	200,287
1868	10,463	13,142	4,396	172,014	200,015
1869	10,308	13,135	4,412	167,751	195,606
1870	10,116	12,820	4,361	157,017	184,314
1871	9,426	12,456	4,070	161,794	187,746
1872	9,052	12,632	4,003	166,985	192,672
1873	8,847	12,531	3,770	166,267	191,415
1874	*8,298	12,567	3,691	162,079	186,635
1875	8,156	12,485	3,643	162,148	186,432
1876	8,093	12,578	3,638	159,640	183,949

* Medical Officers were struck off the effective strength of regiments on 1st November 1873.

TABLE 10.—EFFECTIVES, ESTABLISHMENTS, and number wanting to complete or supernumerary, in Rank and File, on the 1st January in each year from 1861 to 1876.

Years.	Effectives.	Establishments.	Wanting to complete.	Supernumerary.
1861	201,015	202,040	1,025	—
1862	189,968	194,271	4,303	—
1863	194,022	197,089	3,067	—
1864	188,025	192,153	4,128	—
1865	185,147	190,062	4,915	—
1866	176,731	182,468	5,737	—
1867	172,079	173,995	1,916	—
1868	172,014	172,633	619	—
1869	167,751	171,029	3,278	—
1870	157,017	161,150	4,133	—
1871	161,794	171,074	9,280	—
1872	166,985	170,029	3,044	—
1873	166,267	169,395	3,128	—
1874	162,079	161,031	—	1,048
1875	162,148	160,929	—	1,219
1876	159,640	160,537	897	—

PART II. RECRUITING AND CASUALTIES.

TABLE 11.—INCREASE and DECREASE of the Non-Commissioned Officers and Men of each arm of the service reported during the year 1875.

—	Household Cavalry.	Cavalry of the Line.	Royal Horse Artillery.	Royal Artillery.	Royal Engineers.	Foot Guards.	Infantry of the Line.	Colonial Corps.	Army Service Corps.	Army Hospital Corps.	All Arms.
Effectives on 1st January 1875 -	1,206	15,264	5,443	27,630	4,809	5,399	112,024	2,259	2,980	1,262	178,276
Increase—											
Recruits joined { Long Service	127	823	114	1,585	47	357	2,043	108	132	13	5,349
Recruits joined { Short Service	—	1,753	76	1,393	457	353	8,977	9	126	1	13,145
	127	2,576	190	2,978	504	710	11,020	117	258	14	18,494
Joined from desertion - -	11	233	59	335	26	53	1,199	17	6	5	1,944
From Army Reserve - -	—	—	—	—	—	—	11	—	—	—	11
*Other causes - -	9	2	154	137	14	14	—	7	16	98	451
Total Increase -	147	2,811	403	3,450	544	777	12,230	141	280	117	20,900
Decrease—											
Dead - - - - -	9	135	70	431	50	41	1,335	38	29	23	2,161
Discharged - - -	114	1,527	332	2,165	347	686	8,580	211	194	79	14,235
Deserted - - - - -	21	685	142	991	85	112	2,261	40	31	14	4,382
To Army Reserve - -	—	—	—	—	—	—	712	—	—	—	712
Given up as deserters - -	2	107	11	93	7	14	312	—	3	—	549
*Other causes - - -	—	112	189	217	20	24	697	5	5	12	1,281
Total Decrease -	146	2,566	744	3,897	509	877	13,897	294	262	128	23,320
Effectives on 1st January 1876 -	1,207	15,509	5,102	27,183	4,844	5,299	110,357	2,106	2,998	1,251	175,856

* Principally interchanges between the different arms of the service.

N.B.—The figures in this table represent the Increase and Decrease of the Army as *reported in the returns received month by month* during 1875, and do not in every case correspond with the *actual number of Recruits and Casualties during the year* as shown in Tables 13, 14, 16, 17, and 18.

—	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total during the year.
Effectives on the 1st of the month - - -	178,276	178,583	178,025	177,452	176,654	176,103	175,799	175,842	175,755	175,495	175,432	175,632	175,856 (On 1st Jan. 1876.)
Increase—													
Recruits joined { Long Service	461	426	376	390	487	548	557	440	360	436	437	431	5,349
Recruits joined { Short Service	1,215	1,027	774	696	830	1,166	1,406	1,313	1,133	1,216	1,225	1,144	13,145
	1,676	1,453	1,150	1,086	1,317	1,714	1,963	1,753	1,493	1,652	1,662	1,575	18,494
Joined from desertion -	196	159	190	145	180	157	163	150	148	152	144	160	1,944
From Army Reserve -	1	—	—	1	3	—	1	—	1	1	1	2	11
*Other causes - -	25	46	69	70	86	54	36	23	7	3	22	10	451
Total Increase - -	1,898	1,658	1,409	1,302	1,586	1,925	2,163	1,926	1,649	1,808	1,829	1,747	20,900
Decrease—													
Dead - -	187	146	174	184	181	156	164	219	171	209	201	169	2,161
Discharged -	878	1,510	1,220	1,329	1,384	1,414	1,308	1,226	1,056	1,045	956	909	14,235
Deserted - -	319	353	346	307	345	470	367	402	481	373	312	307	4,382
To Army Reserve - -	45	11	27	105	51	50	152	24	85	103	21	38	712
Given up as deserters -	48	48	51	52	46	51	41	46	50	47	31	38	549
*Other causes - -	114	148	164	123	130	88	88	96	66	94	108	62	1,281
Total Decrease - -	1,591	2,216	1,982	2,100	2,137	2,229	2,120	2,013	1,909	1,871	1,629	1,523	23,320
Nett Increase - -	307	—	—	—	—	—	43	—	—	—	200	224	—
Nett Decrease - -	—	558	573	798	551	304	—	87	260	63	—	—	2,420

* Principally interchanges between the different arms of the service.

N.B.—The figures in this table represent the Increase and Decrease of the Army, as *reported in the returns received month by month* during 1875, and do not in every case correspond with the *actual number of Recruits and Casualties during the year*, as shown in Tables 13, 14, 16, 17, and 18.

TABLE 13.—RECRUITS enlisted and passed into the service, casualties between enlistment and final approval, and nett result of recruiting in the UNITED KINGDOM during the year 1875; also the agencies by which the men were raised, the number obtained during each month in England, Scotland, and Ireland, respectively, and the total number obtained during the year in each District or Sub-District, for the Brigade and for the Army generally.

Months.	En-listed.	After Enlistment.				Attested.	After Attestation.			Passed into the Service.	Recruiting Agencies.														Where raised.			
		Primarily Rejected.	Absconded.	Paid Smart.	Other Causes.		Rejected.	Deserted.	Other Causes.		At Head Quarters of Regmts.	Infantry Sub-Districts.					Artillery Sub-Districts.	Cavalry Districts.	London and Dublin Recruiting Districts.					Passed into the Service.	In England.	In Scotland.	In Ireland.	Passed into the Service.
												Brigade Depôts.	Staff of Reserve Forces.	Pensioners.	Line Parties.	Total.			District Staff.	Staff of Reserve Forces.	Pensioners.	Line Parties.	Total.					
January -	2,578	522	66	217	14	1,759	65	24	6	1,664	427	315	205	273	75	868	77	6	70	2	84	130	286	1,664	1,259	127	278	1,664
February	2,222	460	57	175	9	1,521	58	19	13	1,431	413	242	164	256	55	717	40	2	64	—	66	129	259	1,431	1,068	132	231	1,431
March -	1,789	283	56	196	7	1,247	57	26	11	1,153	342	196	90	212	42	540	41	1	52	—	67	110	229	1,153	853	109	191	1,153
April -	1,651	302	37	177	9	1,126	42	22	5	1,057	318	152	85	168	29	434	38	—	80	—	71	116	267	1,057	856	65	136	1,057
May -	2,028	349	50	173	10	1,446	47	21	13	1,365	341	318	143	263	41	765	32	2	48	—	65	112	225	1,365	1,154	82	129	1,365
June -	2,555	407	51	228	13	1,856	63	39	8	1,746	471	389	170	285	48	892	57	3	69	—	80	174	323	1,746	1,477	120	149	1,746
July -	2,753	410	62	222	13	2,046	72	36	11	1,927	430	375	237	310	80	1,002	92	2	106	—	86	209	401	1,927	1,407	207	313	1,927
August -	2,463	381	64	213	9	1,796	71	32	5	1,688	375	337	143	335	64	879	55	1	100	—	93	185	378	1,688	1,290	170	228	1,688
September	2,185	345	50	188	19	1,583	36	37	8	1,502	334	328	146	268	73	815	13	—	57	3	90	190	340	1,502	1,136	136	230	1,502
October -	2,400	418	64	212	7	1,699	47	34	6	1,612	363	329	160	248	65	802	23	1	114	—	97	212	423	1,612	1,287	128	197	1,612
November	2,489	417	51	230	7	1,784	62	40	8	1,674	402	341	210	270	56	877	41	1	117	1	91	144	353	1,674	1,271	144	259	1,674
December	2,356	406	51	237	8	1,654	57	31	10	1,556	373	330	211	227	55	823	70	—	64	—	55	171	290	1,556	1,227	120	209	1,556
General Total -	27,469	4,700	659	2,468	125	19,517	677	361	104	18,375	4,589	3,652	1,964	3,115	683	9,414	579	19	941	6	945	1,882	3,774	18,375	14,285	1,540	2,550	18,375

N.B.—These numbers are exclusive of Recruits enlisted for the Colonial Corps and others *raised abroad.*

TABLE 13 (*continued*)—RECRUITS raised in Recruiting Districts and Sub-Districts during 1875.

District or Sub-District and Station.	Passed into the Service. Total for the Army.	Passed into the Service. For the Brigade and included in foregoing column.
1. Newcastle-on-Tyne.	176	139
2. Carlisle	87	68
3. Sunderland	395	173
4. Richmond (Yorks).	53	28
5. Beverley	121	54
6. York	72	37
7. Doncaster	79	76
8. Doncaster	72	41
9. Halifax	124	29
10. Bradford, Yorks	83	71
11. Preston	30	19
12. Preston	233	111
13. Liverpool	480	149
14. Warrington	153	104
15. Burnley	198	116
16. Ashton-under-Lyne.	301	258
17. Bury (Lancash.)	404	90
18. Chester	50	43
19. Lichfield	240	145
20. Lichfield	221	102
21. Shrewsbury	103	54
22. Worcester	99	66
23. Wrexham	46	40
24. Fort Hubberstone	92	73
25. Brecon	118	105
26. Derby	104	77
27. Leicester	302	205
28. Warwick	151	94
29. Northampton	91	80
30. Lincoln	65	20
31. Great Yarmouth	170	101
32. Bury St. Edmunds.	178	99
33. Bedford	74	46
34. Exeter	65	47
35. Devonport	25	18
36. Taunton	46	21
37. Bristol	284	177
38. Devizes	152	105
39. Weymouth	14	4
40. Fort Elson	136	58
41. Reading	70	56
42. Oxford	111	78
43. Chichester	103	90
44. Warley	141	40
45. Canterbury	75	23
46. Maidstone	67	61
47. Kingston-on-Thames.	58	20
48. Guildford	75	58
49. Warley	233	71
50. Warley	100	86

District or Sub-District and Station.	Passed into the Service. Total for the Army.	Passed into the Service. For the Brigade and included in foregoing column.
51. 52. 53. 54. Winchester	—	—
55. Fort George	23	18
56. Aberdeen	34	26
57. Perth	83	54
58. Stirling	101	66
59. Paisley	209	66
60. Hamilton	347	137
61. Ayr	66	49
62. Dunbar	315	27
63. Belfast	304	36
64. Omagh	87	43
65. Armagh	109	62
66. Naas	279	177
67. Birr	48	39
68. Galway	115	104
69. Clonmel	195	138
70. Tralee	179	51
Total in Infantry Sub-Districts	9,414	5,019
Artillery Sub-Districts.		
Liverpool	215	—
York	33	—
Colchester	30	—
Plymouth	9	—
Bristol	77	—
Wimborne	34	—
Dover	15	—
Woolwich	—	—
Edinburgh	78	—
Aberdeen	47	—
Dublin	19	—
Cork	22	—
Total in Artillery Sub-Districts	579	—
Cavalry Districts		
York	12	—
Aldershot	7	—
Total in Cavalry Districts	19	—
Recruiting Districts		
London	3,515	—
Dublin	259	—
Total in Recruiting Districts	3,774	—
At Headquarters of Regiments	4,589	—
General Total	18,375	5,019

N.B.—The Sub-Districts which are bracketed are grouped together for recruiting purposes, and the numbers shown are the recruits obtained by the agencies under the orders of the officers commanding the respective Sub-Districts.

Table 14.—Ages of the Recruits who joined the Regular Army during 1875.

Corps.	Under 17 years.	17 to 18 years.	18 to 19 years.	19 to 20 years.	20 to 21 years.	21 to 22 years.	22 to 23 years.	23 to 24 years.	24 to 25 years.	Over 25 years.	Total.
Household Cavalry -	4	—	23	31	25	17	12	6	3	6	127
Cavalry of the Line - -	95	25	641	614	433	345	223	115	72	14	2,577
Royal Artillery - - -	187	37	628	928	403	297	225	215	236	12	3,168
Royal Engineers - -	42	2	88	88	54	47	71	42	59	11	504
Foot Guards - - - -	32	46	167	137	89	82	50	45	42	20	710
Infantry of the Line - -	572	83	3,525	2,398	1,454	928	772	640	599	65	11,036
Colonial Corps - -	7	15	21	17	11	14	16	6	3	6	116
Army Service Corps - -	8	1	77	47	26	32	19	22	15	11	258
Army Hospital Corps - -	1	1	3	—	2	1	1	1	3	1	14
Total - - -	948	210	5,173	4,260	2,497	1,763	1,389	1,092	1,032	146	18,510

Table 15.—Re-engagements and Extensions of Service during 1875.

Corps.	While serving.								After discharge.		Men enlisted for short service who have been permitted to extend their engagement in order to complete a period of 12 years.
	After 6 years service.	After 7 years service.	After 8 years service.	After 9 years service.	After 10 years service.	After 11 years service.	After 12 years service.	Total.	Within 12 months.	After 12 months.	
Household Cavalry - -	—	—	1	1	1	15	13	31	—	—	—
Cavalry of the Line - - -	—	—	60	24	24	58	13	179	6	—	—
Royal Artillery - - -	—	—	485	103	82	11	2	683	11	1	—
Royal Engineers - - -	—	—	13	4	12	59	9	97	4	—	—
Foot Guards - - -	—	2	10	47	1	1	—	61	14	1	7
Infantry of the Line - - -	108	178	1,052	457	105	4	6	1,910	12	—	127
Colonial Corps - - -	—	—	1	22	6	—	6	35	3	2	—
Army Service Corps - - -	—	1	15	20	12	8	1	57	1	—	1
Army Hospital Corps - -	1	2	12	7	2	2	—	26	—	—	—
Total - -	109	183	1,649	685	245	158	50	3,079	51	4	135

Table 16.—Number of Men discharged from each arm of the service during 1875, causes of discharge, and number of Pensions granted.

Corps.	On completion of service.			As Invalids.	By indulgence.		For misconduct.	Other causes.	Total.	Pensions granted	
	After 21 years service.	After 18 years service under Art. 1,115 of Pay Warrant.	After 1st period.		Purchase.	Free.				Per-manent.	Tem-porary.
Household Cavalry -	25	—	17	7	38	5	—	22	114	26	5
Cavalry of the Line -	144	—	188	429	575	83	92	33	1,544	277	159
Royal Artillery - -	645	—	526	358	478	69	395	26	2,497	798	288
Royal Engineers -	77	—	72	79	83	4	31	1	347	95	34
Foot Guards - -	81	—	224	132	178	14	41	16	686	101	70
Infantry of the Line -	1,570	41	1,502	2,461	1,416	418	1,070	80	8,558	2,562	996
Colonial Corps - -	14	—	101	75	9	—	10	10	219	18	25
Army Service Corps -	43	—	22	27	63	27	10	2	194	52	11
Army Hospital Corps -	22	—	6	25	7	—	18	1	79	36	5
Total - -	2,621	41	2,658	3,593	2,847	620	1,667	191	14,238	3,965	1,593
Proportion per 1,000 of average strength -	14·9	·2	15·1	20·3	16·1	3·5	9·4	1·1	80·6	—	—
	30·2				19·6						

Table 17.—Ages of the men Discharged from the Army during 1875.

Corps.	Under 30 years.	30 to 31 years.	31 to 32 years.	32 to 33 years.	33 to 34 years.	34 to 35 years.	35 to 36 years.	36 to 37 years.	37 to 38 years.	38 to 39 years.	39 to 40 years.	Upwards of 40 years.	Age not stated.	Total.
Household Cavalry -	64	7	6	4	3	—	3	3	—	1	—	23	—	114
Cavalry of the Line -	866	98	59	53	47	41	42	34	41	50	80	127	6	1,544
Royal Artillery - -	962	209	174	99	122	33	40	43	31	39	267	478	—	2,497
Royal Engineers -	149	38	17	12	7	9	8	9	7	3	15	73	—	347
Foot Guards - -	400	59	52	32	19	15	7	6	2	8	14	72	—	686
Infantry of the Line -	4,571	377	256	195	192	258	204	202	214	380	859	850	—	8,558
Colonial Corps -	143	21	8	11	8	5	3	2	6	2	2	8	—	219
Army Service Corps -	105	5	14	2	2	5	1	2	1	4	25	28	—	194
Army Hospital Corps -	34	3	3	2	3	1	1	1	2	3	12	14	—	79
Total - -	7,294	817	589	410	403	367	309	302	304	490	1,274	1,673	6	14,238
		5,265												

TABLE 18.—NUMBER of DESERTIONS from each arm of the service during 1875, showing the services of the men, the number who rejoined, and the nett loss from desertion.

Corps.	Under 3 months.	3 to 6 months.	6 to 9 months.	9 to 12 months.	Under 1 year.	1 to 2 years.	2 to 3 years.	Over 3 years.	Service not stated.	Total Deserted.	Rejoined from Desertion.	Nett loss from Desertion.
Household Cavalry - -	3	1	—	—	4	1	2	14	—	21	11	10
Cavalry of the Line -	161	104	65	57	387	104	62	127	—	680	233	447
Royal Artillery - -	261	152	100	92	605	161	88	279	—	1,133	394	739
Royal Engineers -	19	4	4	8	35	12	11	27	—	85	26	59
Foot Guards - -	8	9	5	5	27	11	7	65	2	112	53	59
Infantry of the Line - -	442	274	219	209	1,144	383	142	590	—	2,259	1,199	1,060
Colonial Corps - -	—	—	6	3	9	6	7	16	—	38	17	21
Army Service Corps -	4	2	—	2	8	—	5	18	—	31	6	25
Army Hospital Corps -	—	1	1	—	2	4	5	3	—	14	5	9
Total - -	898	547	400	376	2,221	682	329	1,139	2	4,373	1,944	2,429

TABLE 19.—TRANSFERS from the Regular Army to the First Class Army Reserve during 1875.

Services.	Transfers from	
	Foot Guards.	Infantry of the Line.
After 3 years	—	230
After 4 years	—	145
After 5 years	—	98
After 6 years	—	62
After 7 years	—	51
After 8 years	—	66
After 9 years	—	21
After 10 years	—	13
After 11 years	—	14
After 12 years	—	2
After 13 years	—	3
After 14 years	—	1
After 15 years	—	4
After 16 years	—	—
After 17 years	—	—
Service not stated	—	2
Total	—	712

TABLE 20.—INCREASE and DECREASE of the Non-Commissioned Officers and Men reported during each year from 1861 to 1875 inclusive.

Year.	Effectives on 1st January in each year.	Increase.						Decrease.							Nett Increase.	Nett Decrease.	Effectives on 31st December in each year.
		Recruits joined.	Vols. from Embd. Militia.	From Desertion.	From Army Reserve.	Other causes.	Total Increase.	Dead.	Discharged.	Deserted.	To Army Reserve.	Given up as Deserters.	Other causes.	Total Decrease.			
1861 -	217,922	10,918	209	1,703	—	—	12,830	4,290	14,875	4,559	—	† —	462	24,186	—	11,356	206,566
1862 -	206,566	8,814	—	1,215	—	*14,211	24,240	3,450	12,231	2,895	—	—	—	18,576	5,664	—	212,230
1863 -	212,230	11,744	—	1,077	—	—	12,821	3,033	11,892	2,971	—	—	1,141	19,037	—	6,216	206,014
1864 -	206,014	16,323	—	947	—	—	17,270	3,373	13,118	3,079	—	—	543	20,113	—	2,843	203,171
1865 -	203,171	14,430	—	1,010	—	—	15,440	3,403	16,086	3,519	—	—	1,054	24,062	—	8,622	194,549
1866 -	194,549	15,277	—	1,039	—	—	16,316	2,730	14,323	3,583	—	—	561	21,197	—	4,881	189,668
1867 -	189,668	19,453	—	1,249	—	—	20,702	3,104	13,607	3,449	—	—	658	20,818	—	116	189,552
1868 -	189,552	17,060	—	1,221	—	—	18,281	2,685	16,419	3,011	—	—	420	22,535	—	4,254	185,298
1869 -	185,298	12,020	—	1,166	—	—	13,186	3,157	17,380	3,341	—	—	408	24,286	—	11,100	174,198
1870 -	174,198	24,594	—	1,088	—	—	25,682	2,508	15,720	3,171	—	—	161	21,560	4,122	—	178,320
Total for 10 years	—	150,633	209	11,715	—	14,211	176,768	31,733	145,651	33,578	—	—	5,408	216,370	9,786	49,388 39,602	—
Average for 10 years	—	15,063	21	1,171	—	1,421	17,676	3,173	14,565	3,358	—	—	541	21,637	—	—	—
1871 -	178,320	23,568	—	1,498	—	—	25,066	2,220	10,162	4,553	2,237	—	594	19,766	5,300	—	183,620
1872 -	183,620	17,791	—	1,855	20	—	19,666	2,546	11,553	5,861	17	343	398	20,718	—	1,052	182,568
1873 -	182,568	17,194	—	1,785	19	—	18,998	2,046	13,513	5,702	1,030	435	503	23,229	—	4,231	178,337
1874 -	178,337	20,640	—	2,052	27	—	22,719	2,011	13,255	5,572	744	588	610	22,780	—	61	178,276
1875 -	178,276	18,494	—	1,944	11	—	20,449	2,161	14,235	4,382	712	549	830	22,869	—	2,420	175,856

* European Troops of East India Company transferred to Regular Army.

† Prior to 1872 the men who were "Given up as Deserters" to other corps are included in the column headed "Other causes."

TABLE 21.—NUMBER of RECRUITS who have joined the service since the date of the Army Enlistment Act of 1870, showing those who enlisted in each arm for long and short service respectively.

Corps.	1870.		1871.		1872.		1873.		1874.		1875.	
	Long.	Short.	Long.	Short.	Long.	Short.	Long.	Short.	Long.	Short.	Long.	Short.
Household Cavalry - - -	115	—	103	—	124	—	130	—	122	—	127	—
Cavalry of the Line - - - -	2,026	—	2,255	—	1,973	—	1,948	—	1,501	780	823	1,753
Royal Artillery - - -	3,229	—	5,127	3*	4,106	—	3,479	—	3,741	772	1,699	1,469
Royal Engineers - - - -	550	—	468	—	434	—	443	—	188	287	47	457
Foot Guards - - - -	789	76	313	448	27	461	70	289	222	349	357	353
Infantry of the Line - - - -	14,468	2,306	5,747	8,701	522	9,724	862	9,539	1,444	10,613	2,043	8,977
Colonial Corps - - -	498	6	357	21	185	13	214	26	354	9	108	9
Army Service Corps - - - -	517	14	21	2	157	63	26	—	105	46	132	126
Army Hospital Corps - - -	—	—	2	—	2	—	168	—	107	—	13	1
General Total - -	22,192	2,402	14,393	9,175	7,530	10,261	7,340	9,854	7,784	12,856	5,349	13,145
	24,594		23,568		17,791		17,194		20,640		18,494	

* Enlisted in error.

N.B.—The Army Enlistment Act of 1870, under which recruiting for short service was first authorised, was promulgated to the army by Army Circular, dated 10th August 1870.

By General Order 39 of 1871, all recruits for the Foot Guards and Infantry, except boys and lads, were ordered to be enlisted for short service until further orders.

General Order 34 of 1874 defines the proportions in which Recruits for long and short service respectively are permitted to be enlisted for the several arms of the service.

Under General Orders 51 of 1874 and 53 of 1875 recruits for the Royal Artillery and Foot Guards may be enlisted for long and short service indiscriminately.

Under Army Circular 1874 (Cl. 67) short service in the Cavalry, Artillery, and Engineers consists of 8 years in the ranks and 4 years with the reserve, and in the Infantry and Army Service Corps of 6 years in the ranks and 6 years with the reserve.

TABLE 22.—NUMBER of RECRUITS enlisted, attested, finally approved, and sent to regiments, showing the number rejected, deserted, &c., and the nett result of recruiting, in the UNITED KINGDOM, in each year from 1861 to 1875.

Year.	Enlisted.	After Enlistment.				Attested.	After Attestation.			Finally approved.	After final Approval.			Sent to or joined regiments.
		Primarily rejected.	Absconded.	Paid Smart.	Other causes.		Rejected.	Deserted.	Other causes.		Deserted.	Purchased discharge.	Other causes.	
1861	19,747	5,722	540	1,419	32	12,034	1,410	294	60	10,281	171	11	21	10,091
1862	12,516	3,789	294	756	12	7,665	776	81	20	6,796	52	4	4	6,728
1863	19,456	5,988	386	1,264	32	11,786	1,342	106	32	10,301	73	10	14	10,209
1864	27,787	8,262	700	2,260	53	16,512	1,676	197	28	14,607	105	7	22	14,465
1865	25,495	7,707	847	2,296	46	14,599	1,247	204	34	13,123	115	10	27	12,982
1866	23,410	6,105	472	1,870	35	14,928	970	176	28	13,752	88	5	21	13,640
1867	31,041	7,877	703	2,568	58	19,835	1,412	238	37	18,148	112	12	16	18,006
1868	25,376	6,347	372	1,685	51	16,912	940	141	25	15,818	64	6	10	15,743
1869	17,831	4,446	289	1,232	33	11,830	634	78	23	11,095	33	7	6	11,049
1870	34,547	7,125	501	2,370	84	24,485	1,153	206	43	23,081	42	—	6	23,031
1871	35,185	8,019	592	2,911	84	23,586	1,218	271	39	22,049	94	16	7	21,927
1872	28,426	6,341	566	2,470	68	18,976	1,038	256	51	17,650	119	15	12	17,507
1873	25,634	5,387	519	1,990	84	17,661	678	304	78	16,602	—	—	—	16,602
1874	30,356	5,415	677	2,588	159	21,517	793	323	89	20,312	—	—	—	20,312
1875	27,469	4,700	659	2,468	125	19,517	677	361	104	18,375	—	—	—	18,375

Year.	Recruiting Agencies.								Where raised.			
	Head Quarter Recruits.	District and Sub-District Recruits.				Artillery Sub-Districts.	Cavalry Districts.	Total.	In England.	In Scotland.	In Ireland.	Total.
		Brigade Depôts.	Staff of Reserve Forces.	Pensioners.	Line Parties.							
1861	2,141	—	—	1,842	6,108	—	—	10,091	Not stated in the returns for these years.			10,091
1862	2,154	—	—	648	3,926	—	—	6,728				6,728
1863	3,377	—	—	2,436	4,396	—	—	10,209				10,209
1864	3,373	—	—	4,216	6,876	—	—	14,465				14,465
1865	2,679	—	—	4,207	6,096	—	—	12,982	9,681	1,248	2,053	12,982
1866	3,089	—	—	6,225	4,326	—	—	13,640	10,661	972	2,007	13,640
1867	4,207	—	—	8,955	4,844	—	—	18,006	14,190	1,456	2,360	18,006
1868	5,035	—	—	6,193	4,515	—	—	15,743	12,573	1,272	1,898	15,743
1869	2,912	—	—	4,717	3,420	—	—	11,049	8,927	691	1,431	11,049
1870	8,154	—	—	7,210	7,667	—	—	23,031	19,733	1,261	2,037	23,031
1871	6,879	—	—	7,947	7,101	—	—	21,927	18,015	1,547	2,365	21,927
1872	5,859	—	—	6,274	5,374	—	—	17,507	14,525	1,096	1,886	17,507
1873*	4,862	2,216	1,130	4,603	3,566	225	—	16,602	13,431	1,057	2,114	16,602
1874	5,404	4,236	2,451	4,477	3,183	561	—	20,312	15,676	1,789	2,847	20,312
1875	4,589	4,593†	1,970	4,060	2,565	579	19	18,375	14,285	1,540	2,550	18,375

* The new system for the localization of the forces under which the country was divided for recruiting purposes into 66 Sub-Districts came into operation on the 1st April 1873, from which date the old Recruiting Districts (with the exception of London and Dublin) were abolished.

† Including the Staff of the London and Dublin Recruiting Districts.

N.B.—Recruits raised for the Colonial Corps and others enlisted *abroad* are not included in this table; nor the men raised for the Household Cavalry and Foot Guards prior to 1872.

TABLE 23.—RE-ENGAGEMENTS since the passing of the Army Service Act of 1847.

Period.	Before completing First Term.								On completing first term.	After discharge. ‡	Total.
	After 6 years service.	After 7 years service.	After 8 years service.	After 9 years service.	After 10 years service.	After 11 years service.	Service not stated.	Total.			
1857 to October 1860	—	—	—	—	—	—	—	—	3,845	650	4,495
1860–1	—	—	—	—	—	—	—	—	1,829	360	2,189
1861–2	—	—	—	—	—	—	—	—	2,093	192	2,285
1862–3	—	—	—	—	—	—	—	—	2,613	137	2,750
1863–4	—	—	—	—	—	—	—	—	2,748	118	2,866
1864–5	—	—	—	—	—	—	—	—	3,742	228	3,970
1865–6	—	—	—	—	—	—	—	—	5,637	483	6,120
1866–7	—	—	—	—	—	—	—	—	3,184	458	3,642
1867–8*	1,346	3,012	6,223	7,911	1,270	1,056	—	20,818	10,026	632	31,476
1868–9	766	1,014	3,850	3,423	678	571	—	10,302	5,862	665	16,829
1869–70	1,072	766	2,440	1,469	324	381	—	6,452	3,450	100	10,002
1870–1†	1,405	861	1,130	590	181	150	—	4,317	1,836	136	6,289
April to December 1871	1,266	476	496	129	45	75	—	2,487	966	6	3,459
1872	1,096	834	527	235	109	151	—	2,952	Included in preceding column.	3	2,955
1873	1,265	746	597	362	131	182	8	3,291		6	3,297
1874	438	597	824	624	177	212	7	2,879		13	2,892
1875	109	183	1,649	685	245	202	—	3,073		55	3,128

* By the Army Enlistment Act of 1867, men were permitted to re-engage after completing two-thirds of their first term of service, and by Royal warrant of 29th June 1867 the soldiers' pay was increased by twopence per diem, with a further penny a day on re-engagement.

† By the Army Enlistment Act of 1870, re-engagements were restricted to men in the last year of their first period of service, and by Royal warrant dated 2nd June 1870 the extra pay of a penny a day on re-engagement was discontinued, and the scale of good-conduct pay revised. This does not apply to men enlisted under the Acts of 1847 and 1867. See Army Circular, 1872 (clause 111).

‡ By Royal warrant of 27th February 1869, re-engagements after discharge were ordered to be discontinued. This restriction was withdrawn by Army Circular 1875 (Clause 109) and re-engagements within 12 months of discharge were again permitted within certain limits.

of Pensions granted, whether permanent or temporary.

<table>
<tr><th rowspan="2">Year.</th><th colspan="3">On completion of service.</th><th rowspan="2">As invalids.</th><th colspan="2">By indulgence.</th><th rowspan="2">For misconduct.</th><th rowspan="2">For other causes.</th><th rowspan="2">Total.</th><th colspan="2">Pensions granted.</th></tr>
<tr><th>After 21 years' service.</th><th>After 18 years' service under Art. 1,115 of the Pay Warrant.</th><th>After first period.</th><th>Purchase.</th><th>Free.</th><th>Permanent.</th><th>Temporary.</th></tr>
<tr><td>1861 -</td><td colspan="3">1,682</td><td>6,462</td><td>2,217</td><td>2,899</td><td rowspan="5">Included with other causes.</td><td>1,615</td><td>14,875</td><td>3,170</td><td>3,790</td></tr>
<tr><td>1862 -</td><td colspan="3">2,046</td><td>5,508</td><td>1,614</td><td>2,162</td><td>901</td><td>12,231</td><td>2,784</td><td>3,659</td></tr>
<tr><td>1863 -</td><td colspan="3">1,927</td><td>4,424</td><td>1,809</td><td>2,002</td><td>1,730</td><td>11,892</td><td>2,818</td><td>3,548</td></tr>
<tr><td>1864 -</td><td colspan="3">3,592</td><td>4,788</td><td>1,662</td><td>1,910</td><td>1,166</td><td>13,118</td><td>2,923</td><td>3,417</td></tr>
<tr><td>1865 -</td><td colspan="3">6,088</td><td>4,950</td><td>2,276</td><td>1,960</td><td>812</td><td>16,086</td><td>2,739</td><td>3,672</td></tr>
<tr><td>1866 -</td><td colspan="3">6,397</td><td>4,667</td><td>2,399</td><td>444</td><td>328</td><td>88</td><td>14,323</td><td>2,966</td><td>3,288</td></tr>
<tr><td>1867 -</td><td colspan="3">6,330</td><td>3,874</td><td>2,667</td><td>268</td><td>299</td><td>169</td><td>13,607</td><td>3,364</td><td>2,924</td></tr>
<tr><td>1868 -</td><td colspan="3">9,186</td><td>4,182</td><td>2,031</td><td>196</td><td>463</td><td>361</td><td>16,419</td><td>3,858</td><td>3,204</td></tr>
<tr><td>1869 -</td><td colspan="3">2,966</td><td>4,715</td><td>1,844</td><td>2,614</td><td>2,470</td><td>2,771</td><td>17,380</td><td>3,418</td><td>3,951</td></tr>
<tr><td>1870 -</td><td colspan="3">2,570</td><td>4,625</td><td>1,493</td><td>1,579</td><td>1,616</td><td>3,837</td><td>15,720</td><td>3,070</td><td>4,263</td></tr>
<tr><td>1871 -</td><td colspan="3">1,498</td><td>3,697</td><td>2,109</td><td>1,541</td><td>1,032</td><td>285</td><td>10,162</td><td>2,149</td><td>2,549</td></tr>
<tr><td>1872 -</td><td>1,177</td><td>71</td><td>1,080</td><td>3,868</td><td>2,839</td><td>851</td><td>1,683</td><td>126</td><td>11,695</td><td>2,196</td><td>2,482</td></tr>
<tr><td>1873 -</td><td>1,973</td><td>163</td><td>1,129</td><td>3,456</td><td>2,994</td><td>914</td><td>2,065</td><td>819</td><td>13,513</td><td>2,868</td><td>1,806</td></tr>
<tr><td>1874 -</td><td>1,761</td><td>93</td><td>2,072</td><td>3,996</td><td>2,653</td><td>818</td><td>1,648</td><td>223</td><td>13,264</td><td>3,061</td><td>1,910</td></tr>
<tr><td>1875 -</td><td>2,621</td><td>41</td><td>2,658</td><td>3,593</td><td>2,847</td><td>620</td><td>1,667</td><td>191</td><td>14,238</td><td>3,965</td><td>1,593</td></tr>
</table>

N.B.—Men discharged on reduction of Establishment are included in the column headed "For other causes."

Table 25.—Services of Deserters in each year from 1868 to 1875, the number who rejoined the service, and proportion of Deserters to 1,000 men of the average strength.

Year.	Under 3 months.	3 to 6 months.	6 to 12 months.	Under one year.	1 to 2 years.	Over 2 years.	Service not stated.	Total Deserted.	Proportion of Deserters to 1,000 Men.	Rejoined from Desertion.	Nett loss from Desertion.
1868	347	369	403	1,119	469	1,399	24	3,011	16	1,221	1,790
1869	269	209	454	932	514	1,875	20	3,341	18	1,166	2,175
1870	417	250	297	964	363	1,788	56	3,171	18	1,088	2,083
1871	581	679	845	2,105	664	1,769	15	4,553	25	1,498	3,055
1872	626	562	908	2,096	1,507	2,237	21	5,861	32	1,855	4,006
1873	861	642	723	2,226	954	2,491	31	5,702	32	1,785	3,917
1874	1,219	807	819	2,845	670	2,044	23	5,582	31	2,052	3,530
1875	898	547	776	2,221	682	1,468	2	4,373	25	1,944	2,429

TABLE 26.—RETURN showing the proportion of DESERTIONS from the ARMY to the RECRUITS joined in each year from 1861 to 1875.

Year.	Recruits Joined.	Desertions.	Per-centage of Deserters to Recruits.
1861 - -	10,918	4,559	41
1862 - - -	8,814	2,895	32
1863 -	11,744	2,971	25
1864 - - -	16,323	3,079	18
1865 - -	14,430	3,519	24
1866 - - -	15,277	3,583	23
1867 - -	19,453	3,449	17
1868 - - -	17,060	3,011	17
1869 - -	12,020	3,341	27
1870 - -	24,594	3,171	12
1871 - - -	23,568	4,553	19
1872 - -	17,791	5,861	33
1873 - - -	17,194	5,702	33
1874 - -	20,640	5,572	27
1875 - - -	18,494	4,382	24
Total - -	248,320	59,648	24

N.B.—The small per-centage of desertions during 1870 is accounted for by the fact that the majority of the recruits were raised during the latter part of the year. As deserters were not struck off the strength of regiments until after an absence of two months, in many cases they would not be reported till the subsequent year.

The heavy per-centage during 1861 is due to the large number of recruits obtained during the preceding year.

TABLE 27.—SERVICES of MEN transferred from the Regular Army to the 1st Class Army Reserve in each year since the date of the Army Enlistment Act of 1870.

Year.	Services of Men transferred.																Total.
	After 3 years.	After 4 years.	After 5 years.	After 6 years.	After 7 years.	After 8 years.	After 9 years.	After 10 years.	After 11 years.	After 12 years.	After 13 years.	After 14 years.	After 15 years.	After 16 years.	After 17 years.	Service not stated.	
1871 - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,237	2,237
1872 - -	2	1	—	4	—	1	—	—	—	—	4	—	—	—	—	5	17
1873 - -	280	170	101	70	95	79	36	29	17	43	53	34	22	—	—	1	1,030
1874 - -	410	80	43	44	44	47	25	8	3	5	11	10	5	1	1	7	744
1875 - -	230	145	98	62	51	66	21	13	14	2	3	1	4	—	—	2	712

N.B.—There are no means of showing the services of the men who were transferred to the Army Reserve during the year 1871.

PART III.—FOREIGN RELIEFS AND RE-INFORCEMENTS.

TABLE 28.—REGIMENTS and DETACHMENTS embarked for Foreign Service during 1875, and ages of the men embarked with drafts.

CORPS.	Regiments, Batteries, &c.					Detachments.																Total of each Arm.
	No. of.	Serjeants and Farriers.	Trumpeters, Drummers, and Buglers.	Rank and File.	Total Regiments.	Under 18 years of age.	18 to 19 years.	19 to 20 years.	20 to 21 years.	21 to 22 years.	22 to 23 years.	23 to 24 years.	24 to 25 years.	25 to 26 years.	26 to 27 years.	27 to 28 years.	28 to 29 years.	29 to 30 years.	Over 30 years.	Ages not stated.	Total Drafts.	
FOR INDIA.																						
Cavalry of the Line	1	37	7	389	433	5	2	2	28	17	14	16	8	2	4	—	3	1	12	1	115	548
Royal Artillery	8	68	16	1,104	1,188	2	9	16	79	79	70	85	80	45	21	10	10	19	33	—	558	1,746
Infantry of the Line	4	183	66	3,105	3,354	68	16	228	613	358	215	143	107	73	30	27	16	15	112	—	2,021	5,375
Total	—	288	89	4,598	4,975	75	27	246	720	454	299	244	195	120	55	37	29	35	157	1	2,694	7,669
FOR THE COLONIES.																						
Royal Artillery	—	—	—	—	—	5	62	65	29	31	2	25	2	2	1	—	—	1	1	—	226	226
Royal Engineers	1	6	3	84	93	3	—	4	9	16	12	13	12	8	10	7	6	3	15	—	118	211
Infantry of the Line	1	45	16	717	778	40	138	296	319	161	113	82	68	52	24	12	13	6	71	—	1,395	2,173
Army Service Corps	—	—	—	—	—	—	—	—	—	—	—	2	1	—	—	—	2	2	21	—	28	28
Army Hospital Corps	—	—	—	—	—	—	2	7	13	6	14	7	7	3	1	4	—	1	26	—	91	91
Total	—	51	19	801	871	48	202	372	370	214	141	129	90	65	36	23	21	13	134	—	1,858	2,729
General Total	—	339	108	5,399	5,846	123	229	618	1,090	668	440	373	285	185	91	60	50	48	291	1	4,552	10,398

TABLE 29.—REGIMENTS and DETACHMENTS disembarked from Foreign Service during 1875, specifying the number of Invalids and Time-expired men.

Corps.	Regiments, Batteries, &c.					Detachments.				Total of each arm.
	No. of.	Serjeants and Farriers.	Trumpeters, Drummers, and Buglers.	Rank and File.	Total Regiments.	Invalids.	Time expired men.	Other causes.	Total Detachments.	
FROM INDIA.										
Cavalry of the Line	—	—	—	—	—	180	47	11	238	238
Royal Artillery	5	46	10	577	633	480	135	29	644	1,277
Infantry of the Line	5	182	77	2,816	3,075	1,728	961	136	2,825	5,900
Total	—	228	87	3,393	3,708	2,388	1,143	176	3,707	7,415
FROM THE COLONIES.										
Royal Artillery	—	—	—	—	—	60	93	27	180	180
Royal Engineers	—	—	—	—	—	27	37	80	144	144
Infantry of the Line	3	110	48	1,680	1,838	396	328	283	1,007	2,845
Army Service Corps	—	—	—	—	—	3	1	43	47	47
Army Hospital Corps	—	—	—	—	—	8	3	29	40	40
Total	—	110	48	1,680	1,838	494	462	462	1,418	3,256
General Total	—	338	135	5,073	5,546	2,882	1,605	638	5,125	10,671

TABLE 30.—REGIMENTS and DETACHMENTS embarked for Foreign Service in each year from 1871 to 1875.

Year.	—	For India.				For the Colonies.						Total embarked.
		Cavalry of the Line.	Royal Artillery.	Infantry of the Line.	All Arms.	Royal Artillery.	Royal Engineers.	Infantry of the Line.	Army Service Corps.	Army Hospital Corps.	All Arms.	
1871	Regiments, &c. -	—	611	5,458	6,069	—	—	—	—	—	—	6,069
	Detachments - -	13	611	1,104	1,728	740	116	1,252	54	39	2,201	3,929
	Total -	13	1,222	6,562	7,797	740	116	1,252	54	39	2,201	9,998
1872	Regiments, &c. -	—	—	4,423	4,423	716	93	1,261	—	—	2,070	6,493
	Detachments - -	370	922	2,265	3,557	619	71	2,050	13	22	2,775	6,332
	Total -	370	922	6,688	7,980	1,335	164	3,311	13	22	4,845	12,825
1873	Regiments, &c. -	480	795	2,564	3,839	1,017	82	4,709	—	—	5,808	9,647
	Detachments - -	349	1,044	2,088	3,481	96	194	1,592	82	143	2,107	5,588
	Total -	829	1,839	4,652	7,320	1,113	276	6,301	82	143	7,915	15,235
1874	Regiments, &c. -	450	1,103	862	2,415	959	—	3,111	—	—	4,070	6,485
	Detachments - -	125	1,138	2,401	3,664	307	243	2,596	50	62	3,258	6,922
	Total -	575	2,241	3,263	6,079	1,266	243	5,707	50	62	7,328	13,407
1875	Regiments, &c. -	433	1,188	3,354	4,975	—	93	778	—	—	871	5,846
	Detachments - -	115	558	2,021	2,694	226	118	1,395	28	91	1,858	4,552
	Total -	548	1,746	5,375	7,669	226	211	2,173	28	91	2,729	10,398

TABLE 31.—REGIMENTS and DETACHMENTS disembarked from Foreign Service in each year from 1871 to 1875.

Year.	—	From India.				From the Colonies.						Total dis-embarked.
		Cavalry of the Line.	Royal Artillery.	Infantry of the Line.	All Arms.	Royal Artillery.	Royal Engineers.	Infantry of the Line.	Army Service Corps.	Army Hospital Corps.	All Arms.	
1871	Regiments, &c. -	—	807	2,040	2,847	—	149	1,073	—	—	1,222	4,069
	Detachments - -	205	697	1,859	2,761	204	68	911	23	31	1,237	3,998
	Total -	205	1,504	3,899	5,608	204	217	1,984	23	31	2,459	8,067
1872	Regiments, &c. -	312	884	1,696	2,892	480	—	1,501	—	—	1,981	4,873
	Detachments - -	274	706	1,930	2,910	204	80	719	14	23	1,040	3,950
	Total -	586	1,590	3,626	5,802	684	80	2,220	14	23	3,021	8,823
1873	Regiments, &c. -	280	382	2,416	3,078	1,105	—	681	—	—	1,786	4,864
	Detachments - -	244	742	2,353	3,339	151	79	823	8	16	1,077	4,416
	Total -	524	1,124	4,769	6,417	1,256	79	1,504	8	16	2,863	9,280
1874	Regiments, &c. -	353	769	1,810	2,932	966	144	2,369	—	—	3,479	6,411
	Detachments - -	276	654	2,641	3,571	182	59	1,343	70	156	1,810	5,381
	Total -	629	1,423	4,451	6,503	1,148	203	3,712	70	156	5,289	11,792
1875	Regiments, &c. -	—	633	3,075	3,708	—	—	1,838	—	—	1,838	5,546
	Detachments - -	238	644	2,825	3,707	180	144	1,007	47	40	1,418	5,125
	Total -	238	1,277	5,900	7,415	180	144	2,845	47	40	3,256	10,671

PART IV.—COURTS-MARTIAL, CRIMES, AND PUNISHMENTS.

TABLE 32.—NUMBER of COURTS-MARTIAL held during 1875, showing the OFFENCES for which the men were tried, the Sentences awarded, and the Punishments inflicted, in each arm of the service, at home and abroad.

Part I. Courts-Martial and Offences.

—	AT HOME.									ABROAD.								GENERAL TOTAL.
	Household Cavalry.	Cavalry of the Line.	Royal Artillery.	Royal Engineers.	Foot Guards.	Infantry of the Line.	Army Service Corps.	Army Hospital Corps.	All Arms.	Cavalry of the Line.	Royal Artillery.	Royal Engineers.	Infantry of the Line.	Colonial Corps.	Army Service Corps.	Army Hospital Corps.	All Arms.	
Number of Courts-Martial	27	929	1,996	135	349	5,573	68	55	9,132	132	1,060	55	3,134	173	6	9	4,569	13,701
Mutiny - - -	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	2	2
Desertion - - -	8	284	462	25	62	1,481	11	9	2,342	10	22	—	122	27	—	—	181	2,523
Violence to Superiors and Insubordination -	—	99	205	19	47	575	7	6	958	22	167	3	408	29	2	—	631	1,589
Disobedience - -	—	12	52	2	12	64	1	3	146	2	29	1	71	2	—	—	105	251
Quitting or Sleeping on Post - - - -	—	44	102	6	9	117	8	—	286	10	42	1	144	11	—	—	208	494
Drunk on Duty under Arms - - - -	—	28	140	8	16	489	2	—	683	17	125	10	617	5	—	—	774	1,457
Drunkenness - -	2	79	253	15	30	866	19	12	1,276	30	196	21	830	20	2	3	1,102	2,378
Disgraceful Conduct -	1	61	81	8	21	285	5	2	464	7	70	3	195	11	7	3	296	760
Absence without Leave -	12	261	589	41	139	1,337	15	16	2,410	13	234	15	520	25	1	1	809	3,219
Making away with Necessaries - - -	7	242	657	40	176	1,934	11	—	3,067	23	237	5	799	25	—	—	1,089	4,156
Miscellaneous—(See Art. of War, 105) -	5	179	510	21	80	1,606	25	7	2,433	28	214	7	856	57	2	2	1,166	*3,599
Total of Offences -	35	1,289	3,051	185	592	8,754	104	55	14,065	162	1,338	66	4,562	212	14	9	6,363	20,428

* Including one for murder.

TABLE 32—*continued.*—Part II. Sentences awarded.

—	AT HOME.									ABROAD.								GENERAL TOTAL.
	Household Cavalry.	Cavalry of the Line.	Royal Artillery.	Royal Engineers.	Foot Guards.	Infantry of the Line.	Army Service Corps.	Army Hospital Corps.	All Arms.	Cavalry of the Line.	Royal Artillery.	Royal Engineers.	Infantry of the Line.	Colonial Corps.	Army Service Corps.	Army Hospital Corps.	All Arms.	
Death	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	1
Penal Servitude	—	1	—	1	—	9	—	—	11	2	10	—	38	1	—	—	51	62
Reduction to the Ranks	3	100	254	23	22	718	19	12	1,151	39	209	13	644	29	2	2	938	2,089
Reduction to the Ranks and Imprisonment	—	20	28	1	2	98	1	1	151	—	9	3	64	2	1	2	81	232
Corporal Punishment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corporal Punishment and Imprisonment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
To be put under Stoppages, without other punishment	—	4	35	1	—	16	2	—	58	10	19	—	29	—	—	—	58	116
Solitary Confinement	—	2	—	—	—	—	—	—	2	—	—	—	2	—	—	—	2	4
Solitary Confinement and Imprisonment with or without Hard Labour	—	6	11	—	—	41	—	—	58	1	9	1	36	5	—	—	52	110
Imprisonment with or without Hard Labour	24	783	1,638	107	322	4,627	44	40	7,585	74	764	35	2,241	126	3	5	3,248	10,833
Total of Sentences	27	916	1,966	133	346	5,509	66	53	9,016	126	1,020	52	3,055	163	6	9	4,431	13,447
Acquitted	—	12	30	2	3	62	2	2	113	6	40	3	77	10	—	—	136	249

TABLE 32—*continued.*—Part III. Punishments inflicted.

—	AT HOME.									ABROAD.								GENERAL TOTAL.
	Household Cavalry.	Cavalry of the Line.	Royal Artillery.	Royal Engineers.	Foot Guards.	Infantry of the Line.	Army Service Corps.	Army Hospital Corps.	All Arms.	Cavalry of the Line.	Royal Artillery.	Royal Engineers.	Infantry of the Line.	Colonial Corps.	Army Service Corps.	Army Hospital Corps.	All Arms.	
Death - - -	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	1
Penal Servitude -	—	1	—	1	—	9	—	—	11	2	9	—	35	1	—	—	47	58
Reduction to the Ranks - - -	2	96	203	14	21	675	13	8	1,032	36	164	9	593	26	2	2	832	1,864
Reduction to the Ranks and Imprisonment -	—	18	24	1	2	82	1	1	129	—	7	2	48	2	—	2	61	190
Corporal Punishment -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Corporal Punishment and Imprisonment	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
To be put under Stoppages, without other punishment -	—	3	35	1	—	20	1	—	60	10	19	—	30	—	—	—	59	119
Solitary Confinement -	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	2	2
Solitary Confinement and Imprisonment with or without Hard Labour -	—	8	11	—	—	39	—	—	58	1	9	1	35	5	—	—	51	109
Imprisonment with or without Hard Labour - -	24	773	1,632	105	320	4,598	43	40	7,535	73	755	35	2,221	126	3	5	3,218	10,753
Total of Punishments	26	899	1,905	122	343	5,423	58	49	8,825	122	963	47	2,965	160	5	9	4,271	13,096
Pardoned - -	1	17	61	11	3	82	8	4	187	4	57	5	89	3	1	—	159	346

One court-martial quashed and three sentences not confirmed.
Three men discharged with ignominy without other punishment.

One sentence not confirmed.
Two schoolmasters sentenced to loss of service.

Table 33.—Number of Men tried by Courts-Martial, compared with the number of trials, in each arm of the service, during 1875; also the number of each description of Court.

Corps.	Number of men tried.						Number of trials.			
	Once.	Twice.	Three times.	Four times.	Five times.	Total.	General Courts-Martial.	District or Garrison Courts-Martial.	Regimental or Detachment Courts-Martial.	Total.
Household Cavalry - -	21	3	—	—	—	24	—	10	17	27
Cavalry of the Line - -	903	65	8	1	—	977	5	599	457	1,061
Royal Artillery - -	2,279	315	41	6	—	2,641	13	1,733	1,310	3,056
Royal Engineers - -	161	10	3	—	—	174	1	99	90	190
Foot Guards - - -	260	29	9	1	—	299	—	193	156	349
Infantry of the Line - -	7,013	728	71	5	1	7,818	72	4,872	3,763	8,707
Colonial Corps - -	133	17	2	—	—	152	1	117	55	173
Army Service Corps - -	72	1	—	—	—	73	—	50	24	74
Army Hospital Corps -	54	5	—	—	—	59	1	41	22	64
General Total -	10,896	1,173	134	13	1	12,217	93	7,714	5,894	13,701

TABLE 34.—NUMBER of MEN fined for DRUNKENNESS during 1875, compared with the number of FINES inflicted, in each arm of the service.

CORPS.	NUMBER OF MEN FINED.																Number of cases of Fines inflicted.
	Once.	Twice.	Three times.	Four times.	Five times.	Six times.	Seven times.	Eight times.	Nine times.	Ten times.	Eleven times.	Twelve times.	Thirteen times.	Fourteen times.	Fifteen times.	Total of men Fined.	
Household Cavalry -	6	2	1	1	—	—	—	—	—	—	—	—	—	—	—	10	17
Cavalry of the Line -	549	192	95	18	17	7	3	—	1	—	—	—	—	—	—	882	1,447
Royal Artillery - -	1,841	726	363	186	84	56	21	11	2	2	2	—	—	—	—	3,294	6,177
Royal Engineers -	151	60	39	18	16	2	—	1	—	—	—	—	—	—	—	287	560
Foot Guards - -	264	100	56	23	6	7	4	—	—	—	—	—	—	—	—	460	824
Infantry of the Line -	9,370	4,402	2,391	1,319	685	343	169	61	35	15	11	2	1	—	1	18,805	38,415
Colonial Corps - -	58	26	13	4	3	2	1	—	—	—	—	—	—	—	—	107	199
Army Service Corps -	72	23	10	4	2	—	—	—	—	—	—	—	—	—	—	111	174
Army Hospital Corps -	41	8	2	1	—	—	—	—	—	—	—	—	—	—	—	52	67
General Total -	12,352	5,539	2,970	1,574	813	417	198	73	38	17	13	2	1	—	1	24,008	47,880

TABLE 35.—NUMBER of MINOR PUNISHMENTS, including Fines for Drunkenness, inflicted by order of Commanding Officers, in each arm of the service, at home and abroad, during 1875.

Corps.	Home.	Abroad.	Total.
Household Cavalry - -	767	—	767
Cavalry of the Line - -	15,997	2,732	18,729
Royal Artillery - - -	28,950	14,533	43,483
Royal Engineers - - -	4,492	1,397	5,889
Foot Guards - - -	10,240	—	10,240
Infantry of the Line - -	100,659	64,426	165,085
Colonial Corps - - -	—	4,642	4,642
Army Service Corps - -	2,080	79	2,159
Army Hospital Corps - -	923	75	998
Total - - -	164,108	87,884	251,992

TABLE 36.—NUMBER of MEN tried by COURT-MARTIAL in 1865, 1872, 1873, 1874, and 1875, and the total number of trials.

YEAR.	Number of men tried.							Number of trials.
	Once.	Twice.	Three times.	Four times.	Five times.	Six times.	Total Men.	
1865	16,026	2,151	374	34	4	1	18,590	21,612
1872	10,115	1,596	271	40	2	—	12,024	14,290
1873	10,683	1,148	152	14	—	—	11,997	13,491
1874	10,995	1,231	170	22	1	—	12,419	14,060
1875	10,896	1,173	134	13	1	—	12,217	13,701

TABLE 37.—COURTS-MARTIAL, CRIMES, and PUNISHMENTS, in each year from 1865 to 1875.

Part I. Courts-Martial and Offences.

		1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.
No. of Courts-Martial		21,612	23,936	23,535	26,870	19,017	13,321	14,882	14,290	13,491	14,060	13,701
Offences.	Mutiny	—	18	1	1	2	2	—	2	5	—	2
	Desertion	1,914	1,884	2,035	2,143	1,855	1,521	2,136	2,421	2,365	2,692	2,523
	Violence to Superiors and Insubordination	1,272	1,173	1,149	1,565	1,797	1,645	1,751	1,622	1,446	1,529	1,589
	Disobedience	454	298	208	264	309	215	275	273	241	256	251
	Quitting or Sleeping on Post	475	495	478	565	552	427	444	393	420	480	494
	Drunk on Duty under Arms	1,803	1,353	1,470	1,680	1,772	1,428	1,435	1,232	1,218	1,416	1,457
	Habitual Drunkenness	*6,853	9,504	9,353	10,966†	—	—	—	—	—	—	—
	Drunkenness	—	—	—	—	3,903	2,175	2,347	2,226	2,071	2,418	2,378
	Disgraceful Conduct	723	677	557	785	761	727	729	733	728	800	760
	Absence without Leave	3,779	3,762	3,580	4,019	3,273	2,992	3,340	3,392	2,909	3,151	3,219
	Making away with Necessaries	2,685	2,945	2,468	2,556	2,695	2,504	2,639	2,862	2,662	3,874	4,156
	Miscellaneous — (See Art. of War, 105.)	5,122	5,232	4,989	5,530	5,226	2,762	2,814	2,769	2,623	3,314	3,599
Total of Offences		25,080	27,341	26,288	30,074	22,145	16,398	17,910	17,925	16,688	19,930	20,428

* By Circular letter, dated 11th August 1865, men who have been drunk four times during twelve months were directed to be brought to trial for Habitual Drunkenness.

† The large decrease in the number of trials for drunkenness is due to the introduction of a system of fines under the Articles of War for 1869.

TABLE 37—*continued.* Part II. Sentences awarded.

	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.
Death - - - - - -	—	6	1	2	—	—	—	1	3	3	1
Penal Servitude - - -	92	67	43	63	90	50	55	61	55	62	62
Reduction to the Ranks - -	3,399	3,069	2,998	3,449	3,045	2,639	2,590	2,345	2,346	2,368	2,321
Corporal Punishment - -	233	120	54	21	1	1	—	—	5	3	—
Corporal Punishment and Imprisonment - - - -	631	630	210	44	—	1	—	—	—	—	—
To be put under stoppages, without other punishment - -	102	159	365	847	502	130	184	97	123	96	116
Solitary Confinement - - -	9	20	23	14	4	3	3	15	3	6	4
Solitary Confinement and Imprisonment with or without Hard Labour	581	720	684	669	609	251	343	304	211	159	110
Imprisonment with or without Hard Labour - - - -	6,081	18,474	18,682	21,262	14,355	9,952	11,325	11,164	10,451	11,120	10,833
Total of Sentences - - -	21,128	23,265	23,060	26,371	18,606	13,027	14,500	13,987	13,197	13,817	13,447
Acquitted - - - - -	484	669	472	499	406	293	379	302	292	237	249

TABLE 37—*continued.* Part III. Punishments inflicted.

	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875.
Death - - - -	—	2	—	2	—	—	—	1	3	3	1
Penal Servitude - - -	89	68	44	60	86	46	51	61	52	61	58
Reduction to the Ranks - -	3,122	2,799	2,723	3,148	2,720	2,375	2,324	2,104	2,075	2,090	2,054
Corporal Punishment - -	134	101	*29	*19	—	—	—	—	2	—	—
Corporal Punishment and Imprisonment - - - -	466	409	*121	*22	—	†1	—	—	—	—	—
Put under stoppages without other punishment - - -	113	217	392	900	499	140	190	104	130	102	119
Solitary Confinement - -	6	18	8	13	5	3	3	14	1	6	2
Solitary Confinement and Imprisonment with or without Hard Labour	570	599	619	658	534	221	334	290	205	152	109
Imprisonment with or without Hard Labour - - - -	16,192	18,619	18,585	20,982	14,284	9,818	11,229	11,057	10,376	11,030	10,753
Total of Punishments - -	20,692	22,832	22,521	25,804	18,128	12,604	14,131	13,631	12,844	13,444	13,096
Pardoned - - - -	432	428	537	562	470	416	362	349	349	369	346

* By the Mutiny Act of 1867, the infliction of Corporal Punishment was restricted to the crimes of Mutiny and Violence to Superiors, and by the Mutiny Act of 1868 this punishment was abolished, "except on Active Service or on board a Ship not in Commission."

† On board ship.

Table 38.—Number of General, District, and Regimental Courts-Martial at home and abroad from 1865 to 1875, and the proportion per 1,000 of the average strength.

Years.	Average Effectives.			No. of Courts-Martial.						Proportion per 1,000 men.		
	Home.	Abroad.	Total.	General.	District or Garrison.	Regimental or Detachment.	Home.	Abroad.	Total.	Home.	Abroad.	Total.
1865	80,045	118,003	198,048	155	7,020	14,437	Cannot be		21,612	Cannot be		109
1866	79,654	111,265	190,919	120	7,016	16,800	given		23,936	given		125
1867	83,131	106,650	189,781	103	6,651	16,781	separately.		23,535	separately.		124
1868	84,979	101,529	186,508	162	7,517	19,191	12,701	14,169	26,870	149	139	144
1869	81,542	94,917	176,459	198	7,025	11,794	8,621	10,396	19,017	106	110	107
1870	84,848	85,969	170,817	91	6,379	6,851	6,837	6,484	13,321	80	75	77
1871	100,877	82,594	183,471	91	7,303	7,488	9,497	5,385	14,882	94	65	81
1872	99,306	83,709	183,015	99	7,532	6,659	9,314	4,976	14,290	93	59	78
1873	95,768	83,919	179,687	88	7,220	6,183	8,420	5,071	13,491	88	60	76
1874	93,114	84,991	178,105	105	7,740	6,215	9,240	4,820	14,060	99	57	79
1875	92,802	83,785	176,587	93	7,714	5,894	9,132	4,569	13,701	98	54	77

TABLE 39.—NUMBER of MEN FINED for DRUNKENNESS and the total number of FINES inflicted in each arm of the service, from 1869 to 1875.

CORPS.	1869.		1870.		1871.		1872.		1873.		1874.		1875.	
	No. of men fined.	No. of fines.	No. of men fined.	No. of fines.	No. of men fined.	No. of fines.	No. of men fined.	No. of fines.	No. of men fined.	No. of fines.	No. of men fined.	No. of fines.	No. of men fined.	No. of fines.
Household Cavalry -	1	1	8	11	16	20	4	7	3	3	3	6	10	17
Cavalry of the Line -	720	1,003	1,292	1,935	1,289	1,988	1,000	1,716	815	1,352	752	1,230	882	1,447
Royal Artillery -	2,049	2,829	2,903	5,663	4,153	6,691	3,641	6,772	3,296	6,254	3,417	6,445	3,294	6,177
Royal Engineers -	337	716	491	1,128	435	863	390	815	367	769	310	592	287	560
Military Train -	85	101	—	—	—	—	—	—	—	—	—	—	—	—
Foot Guards - -	383	485	578	855	641	936	537	889	434	737	384	646	460	824
Infantry of the Line -	16,871	22,913	25,388	38,284	28,516	43,487	20,319	40,918	18,404	37,634	19,424	40,357	18,805	38,415
Colonial Corps - -	207	288	394	465	105	220	136	253	107	181	114	240	107	199
Army Service Corps -	—	—	66	103	92	164	78	120	168	287	114	159	111	174
Commisst. Staff Corps	14	23	—	—	—	—	—	—	—	—	—	—	—	—
Mily. Store Staff Corps	3	3	—	—	—	—	—	—	—	—	—	—	—	—
Army Hospital Corps -	10	12	14	14	20	29	6	11	9	17	42	58	52	67
Total - -	20,680	28,374	31,134	48,458	35,267	54,398	26,111	51,501	23,603	47,234	24,560	49,733	24,008	47,880

N.B.—The system of Fines for Drunkenness was introduced by the Articles of War for 1869.

TABLE 40.—NUMBER of MINOR PUNISHMENTS inflicted by order of Commanding Officers at home and abroad, in each year, from 1868 to 1875, and the proportion per 1,000 of the average strength.

YEAR.	Average Effectives.			Number of Minor Punishments.			Proportion per 1,000 men.		
	Home.	Abroad.	Total.	Home.	Abroad.	Total.	Home.	Abroad.	Total.
1868 - -	84,979	101,529	186,508	150,771	Not reported.		1,774	Not reported.	
1869 - - -	81,542	94,917	176,459	130,455	117,453	247,908	1,600	1,237	1,405
1870 - -	84,848	85,969	170,817	130,939	95,189	226,128	1,543	1,107	1,324
1871 - - -	100,877	82,594	183,471	179,754	91,725	271,479	1,782	1,111	1,473
1872 - -	99,306	83,709	183,015	159,405	89,774	249,179	1,605	1,072	1,361
1873 - - -	95,768	83,919	179,687	148,022	87,315	235,337	1,545	1,040	1,310
1874 - -	93,114	84,991	178,105	162,484	92,833	255,317	1,745	1,092	1,433
1875 - -	92,802	83,785	176,587	164,108	87,884	251,992	1,768	1,049	1,427

PART V.—REWARDS AND SERVICES.

TABLE 41.—PAST SERVICES of the Non-Commissioned Officers and Men of the different arms on the 1st January 1876, at Home, in the Colonies, and in India.

Corps.	Under 1 year.	1 to 2.	2 to 3.	3 to 4.	4 to 5.	5 to 6.	6 to 7.	7 to 8.	8 to 9.	9 to 10.	10 to 11.	11 to 12.	12 to 13.	13 to 14.	14 to 15.	15 to 16.	16 to 17.	17 to 18.	18 to 19.	19 to 20.	20 to 21.	Over 21 years.	Not reported.	Total.
AT HOME.																								
Household Cavalry -	121	93	91	78	70	65	85	67	63	79	47	49	37	24	31	23	25	26	12	21	33	67	—	1,207
Cavalry of the Line -	2,007	1,403	860	807	771	683	485	561	546	328	240	207	159	141	102	273	404	714	396	282	388	100	12	11,869*
Royal Artillery -	2,683	2,118	1,199	1,117	1,216	970	455	413	634	406	322	302	181	298	626	618	760	696	421	600	799	340	—	17,174
Royal Engineers -	498	346	223	159	238	315	140	146	118	119	82	161	76	70	105	112	87	139	98	84	221	63	—	3,600
Foot Guards - -	644	471	302	362	526	544	279	240	229	291	108	72	79	102	134	125	120	142	112	91	227	99	—	5,299
Infantry of the Line	8,707	5,259	3,492	3,043	2,829	2,946	1,108	1,474	1,482	1,312	1,135	1,078	725	518	694	1,879	2,427	3,500	2,069	1,011	1,918	582	49	49,237
Army Service Corps	246	159	57	194	151	461	118	130	173	121	56	67	43	37	41	107	82	208	124	128	119	38	—	2,860
Army Hospital Corps	—	14	112	119	105	83	17	23	19	9	15	23	28	49	75	78	47	43	59	36	49	3	—	1,006
Total -	14,906	9,863	6,336	5,879	5,906	6,067	2,687	3,054	3,264	2,665	2,005	1,959	1,328	1,239	1,808	3,215	3,952	5,468	3,291	2,253	3,754	1,292	61	92,252*
IN THE COLONIES.																								
Royal Artillery -	288	357	213	366	582	312	159	149	248	116	57	11	40	38	96	65	96	81	33	49	82	8	—	3,446
Royal Engineers -	20	16	73	153	107	79	58	79	110	108	38	77	21	18	33	22	28	59	17	33	89	4	—	1,242
Infantry of the Line	350	2,079	1,666	1,425	1,921	2,017	718	961	890	559	411	442	227	106	177	419	623	815	403	194	277	33	215	16,928
Colonial Corps - -	109	283	262	185	230	174	90	99	128	114	34	34	27	29	26	24	24	22	19	9	15	26	143	2,106
Army Service Corps	—	—	—	3	8	30	6	8	9	12	6	4	8	6	4	4	13	6	5	4	2	—	—	138
Army Hospital Corps	—	—	—	11	15	12	11	12	13	16	4	18	10	9	4	22	13	23	22	13	17	—	—	245
Total -	767	2,735	2,214	2,143	2,863	2,624	1,042	1,308	1,398	925	550	586	333	206	340	556	797	1,006	499	302	482	71	358	24,105
IN INDIA.																								
Cavalry of the Line	5	138	153	252	310	386	228	161	209	217	230	84	114	102	71	121	126	257	229	57	89	36	65	3,640
Royal Artillery -	145	659	656	633	1,230	1,065	834	864	818	680	300	358	345	302	616	530	484	404	256	155	240	91	—	11,665
Royal Engineers -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	—	2
Infantry of the Line	707	1,709	2,340	2,918	3,988	5,216	2,935	3,323	2,926	2,300	1,472	1,597	993	811	853	1,700	1,856	2,650	1,365	524	796	249	964	44,192
Total -	857	2,506	3,149	3,803	5,528	6,667	3,997	4,348	3,953	3,197	2,002	2,039	1,452	1.215	1,540	2,351	2,466	3,312	1,850	736	1,126	376	1,029	59,499
General Total -	16,530	15,104	11,699	11,825	14,297	15,358	7,726	8,710	8,615	6,787	4,557	4,584	3,113	2,660	3,688	6,122	7,215	9,786	5,640	3,291	5,362	1,739	1,448	175,856

* Including one regiment on passage home from India.

TABLE 42.—PAST SERVICES of the Non-commissioned Officers and Men of the different arms, at Home, in the Colonies, and in India on the 1st January 1876, who were enlisted for *Short Service* under the Army Enlistment Act of 1870.

Corps.	AT HOME.							IN THE COLONIES.							IN INDIA.							TOTAL.
	Under 1 year.	1 to 2 years.	2 to 3 years.	3 to 4 years.	4 to 5 years.	Over 5 years.	Total.	Under 1 year.	1 to 2 years.	2 to 3 years.	3 to 4 years.	4 to 5 years.	Over 5 years.	Total.	Under 1 year.	1 to 2 years.	2 to 3 years.	3 to 4 years.	4 to 5 years.	Over 5 years.	Total.	
Household Cavalry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cavalry of the Line	1,379	575	—	—	—	—	1,954	—	—	—	—	—	—	—	—	41	2	—	—	—	43	1,997
Royal Artillery	1,273	404	11	—	—	—	1,688	75	93	1	—	—	—	169	—	33	—	—	—	—	33	1,890
Royal Engineers	419	219	2	1	—	—	641	—	—	2	—	—	—	2	—	—	—	—	—	—	—	643
Foot Guards	320	286	226	292	282	62	1,468	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,468
Infantry of the Line	7,152	4,387	2,962	2,602	1,736	704	19,543	226	1,900	1,503	1,263	1,213	396	6,501	609	1,540	1,901	2,378	2,200	661	9,289	35,333
Colonial Corps	—	—	—	—	—	—	—	3	1	4	25	20	33	86*	—	—	—	—	—	—	—	86*
Army Service Corps	120	59	20	81	50	51	381	—	—	—	3	3	—	6	—	—	—	—	—	—	—	387
Army Hospital Corps	—	—	32	56	77	66	231	—	—	—	4	10	5	19	—	—	—	—	—	—	—	250
General Total	10,663	5,930	3,253	3,032	2,145	883	25,906	304	1,994	1,510	1,295	1,246	434	6,783	609	1,614	1,903	2,378	2,200	661	9,365	42,054

* Gun Lascars at Hong Kong and Ceylon enlisted for short service under special conditions.

TABLE 43.—TERMS OF ENGAGEMENT of the Non-Commissioned Officers and Men of the different arms on the 1st January 1876, at Home, in the Colonies, and in India.

Corps.	Unlimited Service.					Long Service (1st Period).					Re-engaged Men.					Short Service.					Not reported.	Total.
	Serjeants.	Drummers.	Corporals.	Privates.	Total.	Serjeants.	Drummers.	Corporals.	Privates.	Total.	Serjeants.	Drummers.	Corporals.	Privates.	Total.	Serjeants.	Drummers.	Corporals.	Privates.	Total.		
AT HOME.																						
Household Cavalry	3	—	—	—	3	61	18	—	827	906	97	8	—	193	298	—	—	—	—	—	—	1,207
Cavalry of the Line	3	—	—	—	3	290	151	436	5,994	6,871	722	26	223	2,058	3,029	—	1	—	1,953	1,954	12	11,869*
Royal Artillery	13	—	—	5	18	305	191	723	8,562	9,781	1,017	20	520	4,130	5,687	—	1	6	1,681	1,688	—	17,174
Royal Engineers	—	—	—	—	—	80	65	267	1,479	1,891	402	—	175	491	1,068	—	—	—	641	641	—	3,600
Foot Guards	—	—	1	1	2	69	101	155	2,045	2,370	259	28	68	1,104	1,459	—	2	56	1,410	1,468	—	5,299
Infantry of the Line	8	—	—	9	17	567	867	831	9,400	11,665	2,966	418	1,576	13,003	17,963	161	134	898	18,350	19,543	49	49,237
Army Service Corps	—	—	—	—	—	48	21	189	1,140	1,398	365	1	162	553	1,081	3	—	8	370	381	—	2,860
Army Hospital Corps	1	—	—	—	1	17	—	24	229	270	190	—	194	120	504	—	11	—	220	231	—	1,006
Total	28	—	1	15	44	1,437	1,414	2,625	29,676	35,152	6,018	501	2,918	21,652	31,089	164	149	968	24,625	25,906	61	92,252*
IN THE COLONIES.																						
Royal Artillery	—	—	1	—	1	64	55	182	2,300	2,601	145	4	43	483	675	—	—	—	169	169	—	3,446
Royal Engineers	—	—	—	—	—	24	24	103	722	873	103	—	51	213	367	—	—	—	2	2	—	1,242
Infantry of the Line	1	—	1	1	3	198	223	336	4,710	5,497	715	117	285	3,595	4,712	42	47	276	6,136	6,501	215	16,928
Colonial Corps	—	—	—	1	1	52	38	91	1,394	1,575	88	11	27	175	301	2	—	4	80	86†	143	2,106
Army Service Corps	—	—	—	—	—	15	—	16	30	61	43	—	9	19	71	—	—	—	6	6	—	138
Army Hospital Corps	—	—	—	—	—	5	—	14	41	60	45	—	34	87	166	—	—	4	15	19	—	245
Total	1	—	2	2	5	358	340	742	9,227	10,667	1,139	132	449	4,572	6,292	44	47	284	6,408	6,783	358	24,105
IN INDIA.																						
Cavalry of the Line	1	—	—	—	1	68	37	75	1,889	2,069	232	16	104	1,110	1,462	—	—	—	43	43	65	3,640
Royal Artillery	1	—	—	2	3	194	134	472	6,394	7,194	562	54	443	3,376	4,435	—	—	1	32	33	—	11,665
Royal Engineers	—	—	—	—	—	—	—	—	—	—	2	—	—	—	2	—	—	—	—	—	—	2
Infantry of the Line	2	1	—	6	9	550	442	737	14,627	16,356	1,680	321	921	14,652	17,574	64	66	274	8,885	9,289	964	44,192
Total	4	1	—	8	13	812	613	1,284	22,910	25,619	2,476	391	1,468	19,138	23,473	64	66	275	8,960	9,365	1,029	59,499
General Total	33	1	3	25	62	2,607	2,367	4,651	61,813	71,438	9,633	1,024	4,835	45,362	60,854	272	262	1,527	39,993	42,051	1,448	175,856

* Including one regiment on passage home from India.

† Gun Lascars at Hong Kong and Ceylon enlisted under special conditions.

TABLE 44.—NUMBER of MEN serving on the 1st January 1876 who were in possession of GOOD CONDUCT MEDALS, showing the different ranks, and the number in each arm of the service.

Corps.	Medals and Annuities.	Medals and Gratuities.				Medals without Gratuities.			
		Serjeants and Farriers.	Corporals and Bombardiers.	Trumpeters, Drummers, and Privates.	Total.	Serjeants and Farriers.	Corporals and Bombardiers.	Trumpeters, Drummers, and Privates.	Total.
Household Cavalry -	—	3	—	1	4	2	—	1	3
Cavalry of the Line -	2	73	9	40	122	16	5	25	46
Royal Artillery -	3	155	46	242	443	20	2	3	25
Royal Engineers -	—	19	—	8	27	6	—	1	7
Foot Guards - -	—	13	—	2	15	3	—	5	8
Infantry of the Line -	2	235	28	277	540	44	9	149	202
Colonial Corps - -	—	4	—	2	6	2	—	—	2
Army Service Corps -	—	23	1	7	31	3	2	3	8
Army Hospital Corps -	—	1	—	—	1	—	—	—	—
General Total -	7	526	84	579	1,189	96	18	187	301

TABLE 45.—NUMBER of MEN serving on the 1st January 1876 who were in possession of GOOD CONDUCT BADGES, showing the different arms of the service, and the number of badges.

Corps.	One badge.	Two badges.	Three badges.	Four badges.	Five badges.	Six badges.	Total.
Household Cavalry - -	296	272	90	79	33	1	771
Cavalry of the Line - -	3,433	2,010	1,222	823	24	2	7,514
Royal Artillery - -	8,043	3,892	3,121	2,034	103	8	17,201
Royal Engineers - -	1,108	804	340	326	13	—	2,591
Foot Guards - - -	1,124	565	307	339	24	—	2,359
Infantry of the Line - -	24,711	14,331	8,345	4,894	104	2	52,387
Colonial Corps - -	483	243	60	38	2	—	826
Army Service Corps -	753	399	274	252	10	—	1,688
Army Hospital Corps -	195	181	151	96	3	—	626
General Total -	40,146	22,697	13,910	8,881	316	13	85,963

TABLE 46.—COMPARATIVE statement of the Past SERVICES of the Non-Commissioned Officers and Men on the 1st January 1865, 1873, 1874, 1875, and 1876.

Past Services.	Effectives.				
	1st Jan. 1865.	1st Jan. 1873.	1st Jan. 1874.	1st Jan. 1875.	1st Jan. 1876.
Under 1 year - -	14,505	17,109	14,336	18,981	16,530
1 to 2 years - -	9,119	19,784	13,595	13,061	15,104
2 to 3 ,, - -	9,116	17,297	17,279	12,451	11,699
3 to 4 ,, - -	29,128	11,359	17,108	15,020	11,825
4 to 5 ,, - -		10,800	9,069	16,701	14,297
5 to 6 ,, - -	45,072	10,129	9,532	7,924	15,358
6 to 7 ,, - -		8,168	10,179	9,446	7,726
7 to 8 ,, - -	52,249	8,184	7,764	9,421	8,710
8 to 9 ,, - -		7,260	7,213	6,894	8,615
9 to 10 ,, - -		5,448	7,035	6,394	6,787
10 to 11 ,, - -		4,481	4,584	4,847	4,557
11 to 12 ,, - -	11,137	5,892	3,552	3,894	4,584
12 to 13 ,, - -		8,389	4,610	2,791	3,113
13 to 14 ,, - -		9,114	6,999	3,838	2,660
14 to 15 ,, - -	5,688	11,590	8,318	6,399	3,688
15 to 16 ,, - -		5,745	11,341	7,912	6,122
16 to 17 ,, - -	11,582	5,044	6,390	10,301	7,215
17 to 18 ,, - -		6,659	4,385	5,928	9,786
18 to 19 ,, - -		4,034	6,259	3,915	5,640
19 to 20 ,, - -		2,125	4,147	5,368	3,291
20 to 21 ,, - -	4,298	1,582	2,182	4,040	5,362
Over 21 ,, - -		1,162	1,123	1,074	1,739
Not reported - -	11,277	1,213	1,337	1,676	1,448
Total - - -	203,171	182,568	178,337	178,276	175,856
	Proportion per 1,000 men.				
Under 1 year - -	76	94	81	107	94
1 to 2 years - -	48	109	77	74	87
2 to 3 ,, - -	47	95	98	71	67
3 to 5 ,, - -	152	122	148	180	150
5 to 11 ,, - -	507	241	261	254	297
11 to 16 ,, - -	88	225	197	141	116
Over 16 ,, - -	82	114	138	173	189

TABLE 47.—COMPARATIVE statement of the Terms of Engagement of the Non-Commissioned Officers and Men on the 1st January 1873, 1874, 1875, and 1876.

Date.	Unlimited Service.					Long Service (1st Period).					Re-engaged Men.					Short Service.					Not reported.	Total
	Serjeants.	Drummers.	Corporals.	Privates.	Total.	Serjeants.	Drummers.	Corporals.	Privates.	Total.	Serjeants.	Drummers.	Corporals.	Privates.	Total.	Serjeants.	Drummers.	Corporals.	Privates.	Total.		
1st January 1873 - -	103	12	23	190	328	2,285	2,533	4,807	81,438	91,063	10,104	1,199	5,923	54,801	72,027	11	23	135	17,768	17,937	1,213	182,568
1st January 1874 - -	96	3	7	62	168	2,350	2,427	4,856	73,853	83,486	10,000	1,164	5,535	51,815	68,514	37	72	490	24,233	24,832	1,337	178,337
1st January 1875 - -	50	1	6	35	92	2,424	2,385	4,871	69,302	78,992	9,823	1,112	5,113	47,788	63,836	132	132	1.011	32,405	33,680	1,676	178,276
1st January 1876 - -	33	1	3	25	62	2,607	2,367	4,651	61,813	71,438	9,633	1,024	4,835	45,362	60,854	272	262	1,527	39.993	42,054	1,448	175,856

TABLE 48.—COMPARATIVE number of men in possession of GOOD CONDUCT MEDALS on the 1st January 1873, 1874, 1875, and 1876.

Date.	Medals and Annuities.	Medals and Gratuities.				Medals without Gratuities.			
		Serjeants and Farriers.	Corporals and Bombardiers.	Trumpeters, Drummers, and Privates.	Total.	Serjeants and Farriers.	Corporals and Bombardiers.	Trumpeters, Drummers, and Privates.	Total.
1st January 1873 - - -	8	695	83	537	1,315	96	28	208	332
1st January 1874 - - -	8	698	98	670	1,466	99	23	220	342
1st January 1875 - -	9	667	87	682	1,436	106	19	294	419
1st January 1876 - -	7	526	84	579	1,189	96	18	187	301

N.B.—By Royal Warrant of 14th August 1875, the regulations for the issue of Good Conduct Medals were revised, and the grant of Medals without Gratuities was discontinued.

TABLE 49.—COMPARATIVE number of men in possession of GOOD CONDUCT BADGES on the 1st January 1870, 1873, 1874, 1875, and 1876.

Date.	One Badge.	Two Badges.	Three Badges.	Four Badges.	Five Badges.	Six Badges.	Total.
1st January 1870 - - -	34,801	29,607	10,822	3,154	712	*165	79,261
1st January 1873 - - -	39,988	22,752	18,378	4,893	284	116	86,411
1st January 1874 - - -	41,584	22,736	17,187	6,485	215	8	88,215
1st January 1875 - -	40,543	23,030	14,979	8,026	199	14	86,791
1st January 1876 - - -	40,146	22,697	13,910	8,881	316	13	85,963

* Including one man with seven badges.

N.B.—The regulations for the issue of Good Conduct Pay were revised by Royal Warrant of 2nd June 1870.

TABLE 50.—AGES of the Non-Commissioned Officers and Men on the showing the different

Corps.	Under 18 years.	18 to 19.	19 to 20.	20 to 21.	21 to 22.	22 to 23.	23 to 24.	24 to 25.	25 to 26.	26 to 27.	27 to 28.	28 to 29.
AT HOME:												
Household Cavalry -	8	26	50	66	68	95	93	58	70	66	67	53
Cavalry of the Line -	232	483	881	984	986	1,016	919	705	563	472	472	391
Royal Artillery -	427	354	977	1,310	1,267	1,393	1,326	1,013	903	743	573	488
Royal Engineers -	97	90	190	214	165	206	216	227	229	175	148	161
Foot Guards - -	170	201	291	306	322	423	464	367	336	275	241	218
Infantry of the Line	1,328	3,104	4,508	4,087	3,532	3,051	2,928	2,306	1,825	1,566	1,415	1,282
Army Service Corps -	44	88	104	107	158	175	259	198	159	156	128	111
Army Hospital Corps	—	4	33	27	35	37	40	45	48	63	61	62
Total - -	2,306	4,350	7,034	7,101	6,533	6,396	6,245	4,919	4,133	3,516	3,105	2,766
IN THE COLONIES:												
Royal Artillery -	33	74	174	206	249	367	296	267	308	223	221	145
Royal Engineers -	22	9	14	30	42	64	55	68	71	92	90	84
Infantry of the Line	196	211	751	1,252	1,274	1,664	1,779	1,488	1,082	970	737	625
Colonial Corps -	22	45	179	175	185	129	163	161	152	101	112	90
Army Service Corps -	—	—	—	—	—	3	12	10	5	7	11	14
Army Hospital Corps	—	1	5	4	5	9	15	12	13	14	16	15
Total - -	273	340	1,123	1,667	1,755	2,236	2,320	2,006	1,631	1,407	1,187	973
IN INDIA:												
Cavalry of the Line -	10	14	14	54	131	227	288	292	282	211	229	193
Royal Artillery -	51	78	186	389	506	775	943	806	906	806	671	533
Royal Engineers -	—	—	—	—	—	—	—	—	—	—	—	—
Infantry of the Line	297	209	526	1,181	2,062	2,944	4,122	3,744	3,498	3,118	2,648	2,384
Total - -	358	301	726	1,624	2,699	3,946	5,353	4,842	4,686	4,135	3,548	3,110
General Total -	2,937	4,991	8,883	10,392	10,987	12,578	13,918	11,767	10,450	9,058	7,840	6,849
Proportion per 1,000	17	29	51	60	63	72	79	67	60	52	45	39

AND CHEST MEASUREMENTS.

1st January 1876 at Home, in the Colonies, and in India,
arms of the service.

29 to 30.	30 to 31.	31 to 32.	32 to 33.	33 to 34.	34 to 35.	35 to 36.	36 to 37.	37 to 38.	38 to 39.	39 to 40.	40 to 50.	Upwards of 50 years.	Not reported.	Total.
65	53	47	41	35	36	31	26	22	19	25	85	2	—	1,207
326	306	242	180	183	193	404	460	407	345	288	414	5	12	11,869*
527	427	429	455	396	423	514	482	472	578	543	1,137	17	—	17,174
168	133	101	103	111	85	107	73	99	128	111	261	2	—	3,600
192	138	139	146	133	141	110	120	90	125	119	231	1	—	5,299
1,268	1,023	865	924	1,266	1,635	2,054	2,239	1,671	1,759	1,333	2,189	30	49	49,237
95	69	52	57	88	71	114	123	132	108	89	175	—	—	2,860
70	57	51	42	47	37	46	46	36	42	40	30	7	—	1,006
2,711	2,206	1,926	1,948	2,259	2,621	3,380	3,569	2,929	3,104	2,543	4,522	64	61	92,252*
100	101	71	60	71	68	59	69	60	68	54	102	—	—	3,446
38	59	60	41	52	38	36	23	38	43	39	84	—	—	1,242
618	432	311	294	316	437	546	447	372	333	225	352	1	215	16,928
82	77	36	32	51	40	25	21	25	14	17	29	—	143	2,106
11	6	6	8	7	5	7	11	5	2	2	6	—	—	138
17	13	18	12	11	13	11	10	9	7	7	8	—	—	245
916	688	502	447	508	601	684	581	509	467	344	581	1	358	24,105
188	151	138	116	108	121	138	188	140	120	105	117	—	65	3,640
466	447	471	471	509	425	407	401	353	350	232	479	4	—	11,665
—	—	—	—	—	—	—	1	—	—	—	1	—	—	2
2,225	1,635	1,335	1,202	1,436	1,375	1,684	1,582	1,022	1,012	739	1,223	25	964	44,192
2,879	2,233	1,944	1,789	2,053	1,921	2,229	2,172	1,515	1,482	1,076	1,820	29	1,029	59,499
6,506	5,127	4,372	4,184	4,820	5,143	6,293	6,322	4,953	5,053	3,968	6,923	94	1,448	175,856
37	29	25	24	28	29	36	36	28	29	23	42		—	1,000

* Including one regiment on passage home from India.

TABLE 51.—HEIGHTS of the Non-Commissioned Officers and Men on the 1st January 1876, showing the different arms of the service.

Corps.	Under 5 feet 5 inches.	5 feet 5 inches to 5 feet 6 inches.	5 feet 6 inches to 5 feet 7 inches.	5 feet 7 inches to 5 feet 8 inches.	5 feet 8 inches to 5 feet 9 inches.	5 feet 9 inches to 5 feet 10 inches	5 feet 10 inches to 5 feet 11 inches.	5 feet 11 inches to 6 feet.	6 feet and upwards.	Not reported.	Total.
Household Cavalry - - -	9	10	19	13	18	19	94	309	716	—	1,207
Cavalry of the Line - - -	402	352	1,861	3,880	4,113	2,561	1,458	612	193	77	15,509
Royal Artillery - - -	3,487.	3,877	3,716	5,868	6,180	4,408	2,521	1,398	830	—	32,285
Royal Engineers - - -	385	443	1,008	1,106	815	514	310	157	106	—	4,844
Foot Guards - - -	113	48	80	296	1,323	1,501	934	540	464	—	5,299
Infantry of the Line - - -	6,681	18,035	27,048	23,372	15,473	9,512	5,098	2,452	1,334	1,352	110,357
Colonial Corps - - -	114	286	411	406	267	238	111	81	49	143	2,106
Army Service Corps - - -	507	639	683	474	321	186	109	47	32	—	2,998
Army Hospital Corps - -	85	175	180	208	206	145	104	96	52	—	1,251
General Total - - -	11,783	23,865	35,006	35,623	28,716	19,084	10,739	5,692	3,776	1,572	175,856
Proportion per 1,000 men - -	68	137	200	204	165	109	62	33	22	—	1,000

Table 52.—Chest Measurements of the Non-Commissioned Officers and Men serving on the 1st January 1876, showing the different arms of the service.

Corps.	Under 33 inches.	33 inches to 34 inches.	34 inches to 35 inches.	35 inches to 36 inches.	36 inches to 37 inches.	37 inches to 38 inches.	38 inches and over.	Not reported.	Total.
Household Cavalry -	17	18	30	66	138	218	720	—	1,207
Cavalry of the Line -	252	596	1,881	3,079	3,674	2,905	3,045	77	15,509
Royal Artillery - -	519	1,219	3,337	5,024	6,570	6,639	8,977	—	32,285
Royal Engineers - -	131	237	516	754	991	932	1,283	—	4,844
Foot Guards - -	170	158	490	824	1,029	1,059	1,569	—	5,299
Infantry of the Line -	2,513	5,718	12,899	19,221	24,673	20,547	23,421	1,365	110,357
Colonial Corps - -	129	186	378	379	394	208	289	143	2,106
Army Service Corps -	40	84	229	420	624	665	936	—	2,998
Army Hospital Corps -	—	29	457	253	183	166	163	—	1,251
General Total -	3,771	8,245	20,217	30,020	38,276	33,339	40,403	1,585	175,856
Proportion per 1,000 men	22	47	116	172	220	191	232	—	1,000

N.B.—Instructions as to the mode of ascertaining the chest measurements of soldiers were issued in G. O. 7 of 1876, in order to ensure uniformity of system throughout the service.

TABLE 53.—COMPARATIVE statement of the AGES of the Non-Commissioned Officers and Men serving in 1866, 1871, 1873, 1874, 1875, and 1876.

Years.	Proportion per 1,000 men.							
	Under 18 years	18 to 19 years.	19 to 20 years.	20 to 25 years.	25 to 30 years.	30 to 35 years.	35 to 40 years.	Over 40 years.
1866 Cavalry of the Line -	14	80		304	369	148	57	28
1866 Infantry of the Line -	18	115		275	356	151	74	11
1871 - - -	29	76	85	273	217	206	94	20
1873 - - -	20	49	86	317	208	191	107	22
1874 - - -	16	35	61	332	221	180	127	28
1875 - - -	17	30	50	343	220	156	149	35
1876 - - -	17	29	51	341	233	135	152	42

	Abstract of the foregoing numbers.		
	Under 20 years.	20 to 30 years.	Over 30 years.
1866 Cavalry of the Line -	94	673	233
1866 Infantry of the Line -	133	631	236
1871 - - -	190	490	320
1873 - - -	155	525	320
1874 - - -	112	553	335
1875 - - -	97	563	340
1876 - - -	97	574	329

TABLE 54.—COMPARATIVE statement of the HEIGHTS of the Non-Commissioned Officers and Men serving in 1866, 1873, 1874, 1875, and 1876.

Years.	Proportion per 1,000 men.								
	Under 5 feet 5 inches.	5 feet 5 inches to 5 feet 6 inches.	5 feet 6 inches to 5 feet 7 inches.	5 feet 7 inches to 5 feet 8 inches.	5 feet 8 inches to 5 feet 9 inches.	5 feet 9 inches to 5 feet 10 inches.	5 feet 10 inches to 5 feet 11 inches.	5 feet 11 inches to 6 feet.	6 feet and upwards.
1866 Cavalry of the Line -	10	26	101	285	250	169	97	46	16
1866 Infantry of the Line -	95	173	223	189	138	88	54	23	17
1873 - - -	69	143	200	206	162	106	62	31	21
1874 - - -	62	138	196	206	168	113	63	32	22
1875 - - -	65	135	203	205	164	110	63	33	22
1876 - - -	68	137	200	204	165	109	62	33	22

	Abstract of the foregoing numbers.	
	Under 5 feet 7 inches.	Over 5 feet 7 inches.
1866 Cavalry of the Line -	137	863
1866 Infantry of the Line -	491	509
1873 - - -	412	588
1874 - - -	396	604
1875 - - -	403	597
1876 - - -	405	595

PART VII.—NATIONALITIES, RELIGIONS, AND EDUCATION.

TABLE 55.—NATIONALITIES of the Non-Commissioned Officers and Men on the 1st January 1876, showing the different arms of the service.

Corps.	English.	Scotch.	Irish.	Foreigners, &c.	Not reported.	Total.
Household Cavalry - -	948	176	82	1	—	1,207
Cavalry of the Line - -	12,164	1,001	2,236	31	77	15,509
Royal Artillery - -	24,003	2,222	5,949	111	—	32,285
Royal Engineers - -	3,755	530	513	46	—	4,844
Foot Guards - - -	4,722	432	139	6	—	5,299
Infantry of the Line - -	69,772	9,181	29,816	360	1,228	110,357
Colonial Corps - - -	20	5	6	1,932	143	2,106
Army Service Corps - -	2,475	190	320	13	—	2,998
Army Hospital Corps - -	862	81	305	3	—	1,251
General Total - -	118,721	13,818	39,366	2,503	1,448	175,856
Proportion per 1,000 men exclusive of Colonial Corps - - -	689	80	228	3	—	1,000

N.B.—Men reported as born at sea, in India, and in the Colonies, are included under the head of "Foreigners, &c."

TABLE 56.—RELIGIOUS DENOMINATIONS of the Non-Commissioned Officers and Men on the 1st January 1876, showing the different arms of the service.

Corps.	Church of England.	Presbyterians.	Other Protestants.	Roman Catholics.	Mahommedans, Hindoos, Jews, &c.	Not reported.	Total.
Household Cavalry -	1,063	90	2	52	—	—	1,207
Cavalry of the Line -	12,139	941	529	1,822	1	77	15,509
Royal Artillery -	22,683	2,672	1,269	5,661	—	—	32,285
Royal Engineers -	3,244	529	578	493	—	—	4,844
Foot Guards - -	4,691	390	77	141	—	—	5,299
Infantry of the Line -	65,946	9,385	3,487	30,258	—	1,281	110,357
Colonial Corps - -	1,267	16	147	403	130	143	2,106
Army Service Corps -	2,196	231	236	335	—	—	2,998
Army Hospital Corps -	914	82	46	209	—	—	1,251
General Total	114,143	14,336	6,371	39,374	131	1,501	175,856
Proportion per 1,000 men exclusive of Colonial Corps -	656	82	36	226	—	—	1,000

TABLE 57.—EDUCATIONAL ACQUIREMENTS of the Non-Commissioned Officers and Men on the 1st January 1876, showing the different arms of the service.

Corps.	Number who neither read nor write.	Number who read but cannot write.	Number who can only read and write.	Number better educated, *i.e.*, all who are not included in foregoing columns.	Not reported.	Total.
Household Cavalry -	3	1	327	876	—	1,207
Cavalry of the Line -	317	404	6,260	8,451	77	15,509
Royal Artillery - - -	1,470	1,669	15,304	13,842	—	32,285
Royal Engineers -	—	4	638	4,202	—	4,844
Foot Guards - -	104	64	1,763	3,368	—	5,299
Infantry of the Line -	6,609	5,420	53,181	43,866	1,281	110,357
Colonial Corps - -	754	421	588	200	143	2,106
Army Service Corps -	36	52	1,037	1,873	—	2,998
Army Hospital Corps -	1	—	238	1,012	—	1,251
General Total -	9,294	8,035	79,336	77,690	1,501	175,856
Proportion per 1,000 men exclusive of Colonial Corps -	50	44	456	450	—	1,000

TABLE 58.—NATIONALITIES of the Non-Commissioned Officers and Men at various periods from 1868 to 1876, exclusive of the West India regiments and Colonial corps.

Period.	English.	Scotch.	Irish.	Foreigners, &c.	Not reported.	Total.	Proportion per 1,000 men. English.	Proportion per 1,000 men. Scotch.	Proportion per 1,000 men. Irish.	Proportion per 1,000 men. Foreigners, &c.
1 Jan. 1868 -	106,810	17,011	55,583	879	2,507	182,790	593	94	308	5
1 May 1869 -	103,426	16,372	50,331	940	1,153	172,222	605	96	294	5
1 Jan. 1870 -	101,909	16,163	47,151	849	2,838	168,910	614	97	284	5
1 Jan. 1871 -	No returns compiled.									
1 Mar. 1872 -	117,701	15,885	44,092	Not reported.	3,293	180,971	663	89	248	Not reported.
1 Jan. 1873 -	120,134	15,254	42,284	679	1,032	179,383	674	85	237	4
1 Jan. 1874 -	118,848	14,507	41,124	650	972	176,101	679	83	235	3
1 Jan. 1875 -	119,246	13,915	40,626	584	1,646	176,017	684	80	233	3
1 Jan. 1876 -	118,701	13,813	39,360	571	1,305	173,750	689	80	228	3

N.B.—Men reported as born at sea, in India, and in the Colonies, are included under the head of "Foreigners, &c."

TABLE 59.—RELIGIOUS DENOMINATIONS of the Non-Commissioned Officers and Men at various periods from 1861 to 1876, exclusive of the West India regiments and Colonial corps.

Year.	Church of England.	Presbyterians.	Other Protestants.	Roman Catholics.	Not reported.	Total.	Proportion per 1,000 men.			
							Church of England.	Presbyterians.	Other Protestants.	Roman Catholics.
1st January 1861	124,252	22,947	Included with Church of England.	58,630	3,840	209,669	604	111	Included with Church of England.	285
1st January 1862	119,223	20,844		56,104	2,544	198,715	608	106		286
1st January 1863	116,495	23,109	3,549	58,623	2,431	204,207	577	114	18	291
1st January 1864	110,255	21,016	5,280	58,021	3,413	197,985	567	108	27	298
1st January 1865	No returns compiled.									
1st January 1866										
1st January 1867										
1st February 1868	106,135	17,433	5,669	51,889	1,357	182,483	586	96	31	287
1st April 1869	101,373	18,185	5,962	47,484	1,933	174,937	586	105	34	275
1st February 1870	98,754	16,769	5,751	43,590	3,368	168,232	599	102	35	264
1st January 1871	106,221	16,429	6,111	42,295	3,974	175,030	621	96	36	247
1st January 1872	No returns compiled.									
1st January 1873	115,621	15,782	5,962	40,986	1,032	179,383	648	89	33	230
1st January 1874	114,030	15,166	6,446	39,488	971	176,101	651	86	37	226
1st January 1875	113,614	14,629	6,401	39,727	1,646	176,017	651	84	37	228
1st January 1876	112,876	14,320	6,224	38,971	1,359	173,750	656	82	36	226

TABLE 60.—EDUCATIONAL ACQUIREMENTS of the Non-Commissioned Officers and Men at various periods from 1861 to 1876, exclusive of the West India regiments and Colonial corps.

Year.	Number who neither read nor write.	Number who read but cannot write.	Number who can read and write.	Number of superior education.	Not reported.	Total.	Proportion per 1,000 men.			
							Number who neither read nor write.	Number who read but cannot write.	Number who can read and write.	Number of superior education.
1st January 1861	34,884	36,283	99,145	13,692	25,665	209,669	190	197	539	74
									613	
1st January 1862	No returns compiled.									
1st January 1863										
1st January 1864	22,570	29,054	107,509	8,717	30,135	197,985	134	173	641	52
									693	
1st January 1865	23,726	30,271	116,483	12,452	12,490	195,422	130	165	637	68
									705	
1st January 1866	21,731	28,607	116,162	10,930	10,429	187,859	122	161	655	62
									717	
1st January 1867	No returns compiled.									
1st January 1868	16,010	17,924	124,893	10,387	13,576	182,790	95	106	738	61
									799	
1st January 1869	15,207	15,263	127,959	10,283	10,176	178,888	90	90	759	61
									820	
1st January 1870	12,850	13,052	128,763	9,825	4,420	168,910	78	79	783	60
									843	
1st January 1871	No returns compiled.									
1st January 1872	11,852	10,964	125,442	23,593	8,473	180,324	69	64	730	137
									867	
1st January 1873	10,724	9,543	99,910	58,179	1,027	179,383	60	54	560	326
									886	
1st January 1874	9,411	8,036	87,404	70,265	985	176,101	54	46	499	401
									900	
1st January 1875	9,163	7,803	84,417	72,988	1,646	176,017	53	45	484	418
									902	
1st January 1876	8,540	7,614	78,748	77,490	1,358	173,750	50	44	456	450
									906	

N.B.—On the 1st January 1871, the heading of column 4 was changed to "Number of *better* education," and on the 1st January 1873, it was again altered, and now stands as follows, viz., "Number who are better educated, *i.e.*, all who are not included in foregoing columns."

PART VIII.—TROOP AND BATTERY HORSES.

TABLE 61.—NUMBER of TROOP or BATTERY HORSES in the different arms of the service on the 1st of each month during 1875 and the average strength during the year, distinguishing those on the British and Indian Establishments.

Months.	British Establishment.							Indian Establishment.				All Arms.
	Household Cavalry.	Cavalry of the Line.	Royal Horse Artillery.	Royal Artillery.	Royal Engineers.	Army Service Corps.	Total.	Cavalry of the Line.	Royal Horse Artillery.	Royal Artillery.	Total.	
1875.												
1st January - -	839	6,621	1,901	3,975	418	1,073	14,827	3,328	2,564	4,613	10,505	25,332
1st February -	839	6,623	1,900	3,994	415	1,077	14,848	3,405	2,575	4,700	10,680	25,528
1st March - -	840	6,637	1,913	4,036	415	1,085	14,926	3,430	2,624	4,736	10,790	25,716
1st April - -	844	6,624	1,855	4,097	415	1,087	14,922	3,425	2,616	4,754	10,795	25,717
1st May - -	841	6,593	1,831	4,127	423	1,086	14,901	3,450	2,618	4,768	10,836	25,737
1st June - -	848	6,602	1,832	4,136	422	1,083	14,923	3,865	2,608	4,744	11,217	26,140
1st July - -	848	6,581	1,807	4,101	422	1,080	14,839	3,713	2,588	4,776	11,077	25,916
1st August - -	848	6,640	1,805	4,113	420	1,083	14,909	3,707	2,570	4,760	11,037	25,946
1st September -	841	6,695	1,787	4,122	420	1,085	14,950	3,700	2,566	4,727	10,993	25,943
1st October - -	836	6,624	1,773	4,118	420	1,071	14,842	3,742	2,591	4,725	11,058	25,900
1st November -	837	6,691	1,758	4,103	413	1,029	14,831	3,830	2,585	4,712	11,127	25,958
1st December - -	844	6,736	1,770	4,081	413	1,047	14,891	3,807	2,602	4,712	11,121	26,012
	10,105	79,667	21,932	49,003	5,016	12,886	178,609	43,402	31,107	56,727	131,236	309,845
Average during 1875	842	6,639	1,828	4,084	418	1,074	14,885	3,617	2,592	4,727	10,936	25,821

Table 62.—Effective Strength and Distribution of the Horses, according to the latest returns received on the 1st January 1876, specifying those on the British and Indian Establishments, and the number required to complete each arm of the service.

	British Establishment.							Indian Establishment.				
	Household Cavalry.	Cavalry of the Line.	Royal Horse Artillery.	Royal Artillery.	Royal Engineers.	Army Service Corps.	Total.	Cavalry of the Line.	Royal Horse Artillery.	Royal Artillery.	Total.	All Arms.
At Home.												
England - -	837	3,984	1,349	3,364	420	880	10,834	—	—	—	—	10,834
Scotland - -	—	378	—	82	—	—	460	—	—	—	—	460
Ireland - -	—	2,415	444	613	—	180	3,652	—	—	—	—	3,652
	837	6,777	1,793	4,059	420	1,060	14,946	—	—	—	—	14,946
Cape of Good Hope -	—	—	—	21	—	—	21	—	—	—	—	21
East Indies.												
Bengal - -	—	—	—	—	—	—	—	2,568	1,905	2,437	6,910	6,910
Bombay - -	—	—	—	—	—	—	—	417	345	1,090	1,852	1,852
Madras - -	—	—	—	—	—	—	—	433	360	1,189	1,982	1,982
	—	—	—	—	—	—	—	3,418	2,610	4,716	10,744	10,744
General Total - -	837	6,777	1,793	4,080	420	1,060	14,967	3,418	2,610	4,716	10,744	25,711
Establishment -	825	6,992	1,808	4,156	422	1,095	15,298	3,925	2,670	4,730	11,325	26,623
Wanting to complete	—	215	15	76	2	35	331	507	60	14	581	912
Supernumeraries -	12	—	—	—	—	—	—	—	—	—	—	—

N.B.—At the above date the Cavalry in India was one regiment below its establishment, the 18th Hussars having disposed of its horses on

TABLE 63.—INCREASE and DECREASE of the HORSES of each arm of the service on the British Establishment reported during the year 1875.

Corps.	Effectives on the 1st January 1875.	Increase.			Decrease.					Effectives on the 1st January 1876.
		Recruited.	Other causes.	Total Increase.	Dead.	Cast.	Sold to Officers.	Other causes.	Total Decrease.	
Household Cavalry -	839	83	—	83	14	69	2	—	85	837
Cavalry of the Line -	6,621	834	7	841	154	487	41	3	685	6,777
Royal Horse Artillery -	1,901	109	49	158	23	142	—	101	266	1,793
Royal Artillery - -	3,975	398	108	506	82	269	2	48	401	4,080
Royal Engineers -	418	41	—	41	6	33	—	—	39	420
Army Service Corps -	1,073	84	—	84	16	81	—	—	97	1,060
Total -	14,827	1,549	164*	1,713	295	1,081	45	152*	1,573	14,967

* Principally interchanges between the different arms of the service.

TABLE 64.—INCREASE and DECREASE of the HORSES on the British Establishment reported during each month of the year 1875.

Months.	Effectives on the 1st day of each month.	Increase.			Decrease.					Effectives on the last day of each month.
		Recruited.	Other causes.	Total Increase.	Dead.	Cast.	Sold to Officers.	Other causes.	Total Decrease	
January -	14,827	74	5	79	23	27	2	6	58	14,848
February -	14,848	110	12	122	22	11	—	11	44	14,926
March -	14,926	43	58	101	16	27	2	60	105	14,922
April - -	14,922	75	12	87	25	59	13	11	108	14,901
May - -	14,901	73	7	80	24	23	4	7	58	14,923
June - -	14,923	55	7	62	25	109	6	6	146	14,839
July - -	14,839	158	10	168	51	32	4	11	98	14,909
August - -	14,909	132	8	140	22	75	1	1	99	14,950
September -	14,950	205	9	214	31	284	1	6	322	14,842
October -	14,842	324	11	335	18	308	10	10	346	14,831
November -	14,831	177	4	181	22	95	1	3	121	14,891
December -	14,891	123	21	144	16	31	1	20	68	14,967
Total -	—	1,549	*164	1,713	295	1,081	45	*152	1,573	—

* Principally interchanges between the different arms of the service.

TABLE 65.—AGES of the HORSES in each arm of the service on the 1st January 1876, specifying those on the British and Indian Establishments.

Corps.	British Establishment.					Indian Establishment.				
	Under 5 years.	5 to 8 years.	9 to 12 years.	13 and over.	Total.	Under 5 years.	5 to 8 years.	9 to 12 years.	13 and over.	Total.
Household Cavalry - - -	120	249	246	222	837	—	—	—	—	—
Cavalry of the Line - - -	1,144	2,214	2,234	1,164	6,777	37	1,226	1,269	832	3,364
Royal Artillery - - - -	524	2,257	2,344	748	5,873	229	2,800	2,989	1,308	7,326
Royal Engineers - - -	31	114	184	91	420	—	—	—	—	—
Army Service Corps - - -	61	361	370	268	1,060	—	—	—	—	—
All Arms - -	1,880	5,195	5,378	2,493	14,967	266	4,026	4,258	2,140	10,690

TABLE 66.—SIZES of the HORSES in each arm of the service on the 1st January 1876, specifying those on the British and Indian Establishments.

Corps.	British Establishment.					Indian Establishment.				
	14½ hands.	15 hands.	15½ hands.	16 hands.	Total.	14½ hands.	15 hands.	15½ hands.	16 hands.	Total.
Household Cavalry - - -	—	1	413	423	837	—	—	—	—	—
Cavalry of the Line - - -	6	1,800	4,309	641	6,777	1,762	1,282	298	22	3,364
Royal Artillery - - - -	9	494	4,299	1,071	5,873	2,134	2,909	2,044	239	7,326
Royal Engineers - - -	9	233	178	—	420	—	—	—	—	—
Army Service Corps - - -	2	326	670	62	1,060	—	—	—	—	—
All Arms - -	26	2,854	9,869	2,197	14,967	3,896	4,191	2,342	261	10,690

TABLE 67.—EFFECTIVE STRENGTH of the HORSES in each arm of the service, according to the latest returns received on the 1st January in each year from 1861 to 1876, specifying those on the British and Indian Establishments.

Year.	British Establishment.								Indian Establishment.				All Arms.
	Household Cavalry.	Cavalry of the Line.	Royal Horse Artillery.	Royal Artillery.	Royal Engineers.	Military Train and Army Service Corps.	Colonial Corps.	Total.	Cavalry of the Line.	Royal Horse Artillery.	Royal Artillery.	Total.	
1861	853	7,130	1,093	2,832	108	984	604	13,604	5,792	—	—	5,792	19,396
1862	840	7,131	1,165	2,674	107	990	603	13,510	4,464	—	—	4,464	17,974
1863	849	7,095	1,442	2,990	109	1,014	644	14,143	5,093	3,691	5,626	14,410	28,553
1864	848	6,695	1,442	2,910	171	867	581	13,514	4,979	3,296	5,513	13,788	27,302
1865	853	6,189	1,342	2,941	258	1,065	522	13,170	5,163	3,267	5,500	13,930	27,100
1866	832	6,117	1,468	2,554	285	1,029	401	12,686	5,056	3,249	4,822	13,127	25,813
1867	834	6,021	1,443	2,423	295	1,077	390	12,483	4,980	3,324	4,725	13,029	25,512
1868	844	6,017	1,468	2,441	289	901	361	12,321	4,337	3,347	4,662	12,346	24,667
1869	848	6,085	1,468	2,598	299	973	306	12,577	3,978	3,463	4,730	12,171	24,748
1870	847	5,720	1,242	2,086	198	948	275	11,316	4,059	3,398	4,561	12,018	23,334
1871	851	6,800	1,566	2,258	360	1,095	—	12,930	3,788	3,360	4,596	11,744	24,674
1872	854	6,747	1,883	3,587	413	1,082	—	14,566	3,809	2,596	4,653	11,058	25,624
1873	838	6,745	1,909	3,924	410	1,098	—	14,924	3,404	2,480	4,609	10,493	25,417
1874	824	6,708	1,850	4,005	413	1,086	—	14,886	3,313	2,596	4,704	10,613	25,499
1875	839	6,621	1,901	3,975	418	1,073	—	14,827	3,328	2,564	4,613	10,505	25,332
1876	837	6,777	1,793	4,080	420	1,060	—	14,967	3,418	2,610	4,716	10,744	25,711

TABLE 68.—INCREASE and DECREASE of HORSES on the British Establishment in each year from 1861 to 1875.

Year.	Effectives on the 1st January in each year.	Increase.			Decrease.					Nett Increase.	Nett Decrease.	Effectives on the 31st December in each year.
		Recruited.	Other causes.	Total Increase.	Dead.	Cast and Sold.	Sold to Officers.	Other causes.	Total Decrease.			
1861 - -	13,604	1,354	15	1,369	291	1,146	26	—	1,463	—	94	13,510
1862 - -	13,510	1,684	739*	2,423	278	1,477	35	—	1,790	633	—	14,143
1863 - -	14,143	1,377	—	1,377	361	1,536	33	76†	2,006	—	629	13,514
1864 - -	13,514	1,495	93‡	1,588	228	1,674	30	—	1,932	—	344	13,170
1865 - -	13,170	1,336	—	1,336	252	1,503	36	29	1,820	—	484	12,686
1866 - -	12,686	1,373	—	1,373	236	1,298	25	17	1,576	—	203	12,483
1867 - -	12,483	1,394	12	1,406	305	1,252	11	—	1,568	—	162	12,321
1868 - -	12,321	1,558	1	1,559	238	1,049	16	—	1,303	256	—	12,577
1869 - -	12,577	773	—	773	234	1,771	19	10	2,034	—	1,261	11,316
1870 - -	11,316	3,407	32§	3,439	224	1,504	17	80‖	1,825	1,614	—	12,930
Total for 10 years - -	—	15,751	892	16,643	2,647	14,210	248	212	17,317	2,503	3,177	—
											674	
Average for 10 years - -	—	1,575	89	1,664	265	1,421	25	21	1,732	—	—	—
1871 - -	12,930	2,976	42¶	3,018	364	979	39	—	1,382	1,636	—	14,566
1872 - -	14,566	1,864	24	1,888	369	1,116	45	—	1,530	358	—	14,924
1873 - -	14,924	1,301	13	1,314	301	1,027	24	—	1,352	—	38	14,886
1874 - -	14,886	1,295	10	1,305	313	1,018	33	—	1,364	—	59	14,827
1875 - -	14,827	1,549	12	1,561	295	1,081	45	—	1,421	140	—	14,967

* Including 665 Royal Artillery horses received from the Canadian Government.

† Including 40 to Commissariat Department, New Zealand.

‡ Including 42 in Canada and New Zealand.

§ Including 28 at the School of Gunnery taken on strength of Royal Artillery.

‖ Sold to Canadian Government.

¶ Including 15 officers' chargers and 15 transfers from the auxiliary transport at the Autumn Manœuvres.

TABLE 69.—AGES of the HORSES on the British and Indian Establishments on the 1st January 1873, 1874, 1875, and 1876.

Year.	British Establishment.						Indian Establishment.					
	Under 5 years.	5 to 8 years.	9 to 12 years.	13 and over.	Not reported.	Total.	Under 5 years.	5 to 8 years.	9 to 12 years.	13 and over.	Not reported.	Total.
1st January 1873 - - -	1,638	7,328	3,563	2,395	—	14,924	666	4,236	3,949	1,585	57	10,493
1st January 1874 - - -	1,831	7,308	3,518	2,229	—	14,886	507	4,190	4,367	1,536	13	10,613
1st January 1875 - - -	1,627	6,842	3,978	2,380	—	14,827	476	4,211	4,140	1,780	—	10,607
1st January 1876 - -	1,880	5,195	5,378	2,493	21	14,967	266	4,026	4,258	2,140	—	10,690

TABLE 70.—SIZES of the HORSES on the British and Indian Establishments on the 1st January 1873, 1874, 1875, and 1876.

Year.	British Establishment.						Indian Establishment.					
	14½ hands.	15 hands.	15½ hands.	16 hands.	Not reported.	Total.	14½ hands.	15 hands.	15½ hands.	16 hands.	Not reported.	Total.
1st January 1873 - - -	50	3,540	9,051	2,283	—	14,924	4,009	3,788	2,297	342	57	10,493
1st January 1874 - -	73	3,702	9,138	1,973	—	14,886	3,868	4,094	2,267	371	13	10,613
1st January 1875 - - -	44	3,645	9,238	1,900	—	14,827	4,154	4,099	2,070	284	—	10,607
1st January 1876 - -	26	2,854	9,869	2,197	21	14,967	3,896	4,191	2,342	261	—	10,690

PART IX.—AUXILIARY AND RESERVE FORCES.

(*From returns furnished by the Inspector-General of Auxiliary Forces.*)

Table 71.—General Annual Return of the Reserve and Auxiliary Forces for the year 1875, showing the different branches of the service.

Corps.	Date.	All Ranks.		
		Total Enrolled.	Establishment.	Wanting to complete.
Army Reserve { Class I.	1st January 1876	6,051	*10,000	3,949
Army Reserve { Class II.	1st January 1876	21,997	*22,000	3
Militia	Date of Inspection	116,207	139,990	23,783
Yeomanry	Date of Inspection	12,463	15,080	2,617
Volunteers	1st November 1875	181,080	238,261	57,181
	General Total	337,798	425,331	87,533
Militia Reserve (included with Militia)	Date of Inspection	27,983	30,000	2,017

* Numbers voted in Army Estimates for 1875–6.

TABLE 72.—STATE of the ARMY RESERVE, showing the composition of the force, at the commencement of each quarter during 1875.

Date.	—	Class I. Reserve 1870.	Reserve of 1867.		Reserve of 1859.	Enrolled Pensioners.	TOTAL.	Detail of Class I.					
			Class I.	Class II.				Cavalry.	Artillery.	Engineers.	Foot Guards.	Infantry.	All Arms.
1st January 1875	Great Britain	6,909	121	598	1,805	14,089	23,522	343	339	36	127	6,185	7,030
	Ireland	767	32	78	186	5,239	6,302	17	32	1	2	747	799
	Total	7,676	153	676	1,991	19,328	29,824	360	371	37	129	6,932	7,829
		7,829											
1st April 1875	Great Britain	6,886	104	609	1,784	14,197	23,580	320	337	33	124	6,176	6,990
	Ireland	748	28	81	168	5,182	6,207	16	31	1	2	726	776
	Total	7,634	132	690	1,952	19,379	29,787	336	368	34	126	6,902	7,766
		7,766											
1st July 1875	Great Britain	6,960	70	622	1,763	14,293	23,708	322	317	37	119	6,235	7,030
	Ireland	740	24	84	170	5,206	6,224	16	29	1	1	717	764
	Total	7,700	94	706	1,933	19,499	29,932	338	346	38	120	6,952	7,794
		7,794											
1st October 1875	Great Britain	6,788	56	626	1,737	14,399	23,606	296	291	32	107	6,118	6,844
	Ireland	766	24	79	164	5,190	6,223	15	27	1	2	745	790
	Total	7,554	80	705	1,901	19,589	29,829	311	318	33	109	6,863	7,634
		7,634											

Table 73.—Ages of the Men composing the Army Reserve on the 1st January 1876 and the number in each arm of the service.

—	Ages.					Arms of the service.				
	Under 30 years.	30 to 35 years.	35 to 40 years.	Over 40 years.	Total.	Cavalry.	Artillery.	Engineers.	Infantry.	Total.
Class I.										
Reserve of 1867	2	28	26	4	60	6	5	—	49	60
1870	2,794	1,697	1,407	93	5,991	186	202	15	5,588	5,991
	2,796	1,725	1,433	97	6,051	192	207	15	5,637	6,051
Class II.										
Reserve of 1867	—	20	248	438	706	55	66	7	578	706
1859	—	15	551	1,300	1,866	87	113	6	1,660	1,866
Enrolled Pensioners	70	459	2,250	16,646	19,425	684	2,295	110	16,336	19,425
	70	494	3,049	18,384	21,997	826	2,474	123	18,574	21,997
General Total	2,866	2,219	4,482	18,481	28,048	1,018	2,681	138	24,211	28,048

TABLE 74.—NUMBER of MEN of the First Class Army Reserve who were absent from the quarterly payments during 1875, and the proportion to the number enrolled.

Quarter ending	Numbers Enrolled.				Numbers absent from quarterly payments.				Per-centage of absentees to numbers enrolled.
	Reserve of 1870.		Reserve of 1867.	Total.	Reserve of 1870.		Reserve of 1867.	Total.	
	Section A.	Section C.			Section A.	Section C.			
31st March 1875 - - -	4,238	3,427	101	7,766	173	237	4	414	5·3
30th June 1875 - · -	4,216	3,516	62	7,794	184	254	2	440	5·6
30th September 1875 - -	3,937	3,659	38	7,634	159	266	3	428	5·6
31st December 1875 - -	2,353	3,638	60	6,051	115	263	1	379	6·2

N.B.—Section A. consists of men who have been discharged from the army, and section C. of those who have been transferred to the Army Reserve to complete their service under the provisions of the Army Enlistment Act of 1870.

TABLE 75.—GENERAL STATE of the MILITIA (including the Militia Reserve) at the date of the annual inspection of the several regiments in the year 1875.

—	BY RANKS.							BY COUNTRIES.				BY ARMS.			
		Permanent Staff.													
	Officers.	Serjeants.	Drummers.	Serjeants.	Corporals.	Privates.	All Ranks.	English regiments.	Scotch regiments.	Irish regiments.	Total.	Artillery.	Infantry.	Rifles.	All arms.
Present at inspection -	2,914	3,267	1,176	2,270	4,282	85,337	99,246	65,830	10,493	22,923	99,246	11,860	69,750	17,636	99,246
Absent from inspection. With leave -	325	12	1	22	57	2,374	2,791	1,892	280	619	2,791	316	1,974	501	2,791
Without leave	25	—	2	10	59	10,860	10,956	7,413	1,278	2,265	10,956	1,390	7,711	1,855	10,956
Four regiments not trained	89	84	28	56	112	2,845	3,214	—	—	3,214	3,214	—	1,835	1,379	3,214
Number enrolled - -	3,353	3,363	1,207	2,358	4,510	101,416	116,207	75,135	12,051	29,021	116,207	13,566	81,270	21,371	116,207
Establishment - -	3,858	3,544	1,270	2,536	5,076	123,706	139,990	92,586	12,758	34,646	139,990	16,973	98,417	24,600	139,990
Wanting to complete -	505	181	63	178	566	22,290	23,783	17,451	707	5,625	23,783	3,407	17,147	3,229	23,783
Supernumerary - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE 76.—EFFECTIVE STRENGTH of the Militia, in Rank and File, on the 1st of each month during 1875, and the average strength during the year.

Months.	Rank and File.			
	English regiments.	Scotch regiments.	Irish regiments.	Total.
1875.				
1st January - - -	66,517	10,257	23,847	100,621
1st February - - -	68,810	10,589	24,403	103,802
1st March - - -	70,696	10,840	24,861	106,397
1st April - - -	71,705	11,094	25,252	108,051
1st May - - -	71,577	11,329	25,707	108,613
1st June - - -	67,560	11,324	25,776	104,660
1st July - - -	66,099	11,142	25,515	102,756
1st August - - -	65,282	10,875	25,195	101,352
1st September - -	63,356	10,809	25,130	99,295
1st October - - -	61,664	10,535	24,724	96,923
1st November - -	61,770	10,105	24,332	96,207
1st December - - -	63,301	10,131	24,456	97,888
Total - -	798,337	129,030	299,198	1,226,565
Average during 1875 -	66,528	10,752	24,933	102,213

TABLE 77.—AGES of the Non-Commissioned Officers and Men serving in the Militia (including the Permanent Staff) on 1st January 1876.

—	Ages.						
	Under 17 years.	17 to 19 years.	19 to 25 years.	25 to 30 years.	30 to 35 years.	Over 35 years.	Total.
Artillery - -	99	1,567	5,505	2,574	1,448	1,148	12,341
Infantry - -	1,367	13,195	32,806	15,130	7,327	5,328	75,153
Rifles - - -	303	2,473	7,944	4,001	2,497	1,623	18,841
Total - -	1,769	17,235	46,255	21,705	11,272	8,099	106,335
English regiments -	803	10,856	31,111	14,413	6,954	5,118	69,255
Scotch " -	93	1,607	4,777	2,310	1,253	811	10,851
Irish " -	873	4,772	10,367	4,982	3,065	2,170	26,229
Total - -	1,769	17,235	46,255	21,705	11,272	8,099	106,335
Militia Reserve (included above).	1	669	13,609	7,928	3,385	844	26,436

TABLE 78.—INCREASE and DECREASE of the MILITIA between the trainings in 1874 and 1875 (exclusive of the Permanent Staff).

—		English regiments.	Scotch regiments.	Irish regiments.	Total.
Number enrolled at date of inspection in 1874 (exclusive of two Scotch regiments not trained) - -		68,601	9,629	24,949	103,179
Increase.	Recruits - -	20,250	3,167	6,170	29,587
	Joined from Desertion -	477	112	193	782
	Other causes - -	435	186	128	749
	Two regiments not trained in 1874 -	—	1,332	—	1,332
		21,162	4,797	6,491	32,450
Decrease.	Dead - - -	331	63	142	536
	Discharged - - -	10,026	1,643	1,832	13,501
	Deserted - - -	5,514	964	2,071	8,549
	Joined Regular Army -	3,409	410	1,315	5,134
	Other causes - -	522	48	235	805
	Four regiments not trained in 1875 -	—	—	1,833	1,833
		19,802	3,128	7,428	30,358
Number enrolled at date of inspection in 1875 (exclusive of four Irish regiments not trained) - -		69,961	11,298	24,012	105,271

TABLE 79.—AGES of the RECRUITS who joined the Militia during the year 1875.

—	Ages of Recruits joined.					
	Under 17 years.	17 to 19 years.	19 to 25 years.	25 to 30 years.	Over 30 years.	Total.
English regiments - -	826	8,350	9,171	1,718	500	20,565
Scotch ,, - -	133	1,056	1,501	474	142	3,306
Irish ,, - -	614	2,726	1,969	563	122	5,994
Total -	1,573	12,132	12,641	2,755	764	29,865

TABLE 80.—EFFECTIVE STRENGTH of the MILITIA RESERVE at the date of the annual inspection of the several regiments for the year 1875.

—	Number present at training of 1875.			Establishment.
	Enrolled during 1875.	Enrolled prior to 1875.	Total enrolled.	
English regiments - -	4,489	13,774	18,263	20,000
Scotch " - -	979	2,276	3,255	2,500
Irish " - -	1,481	4,984	6,465	7,500
Total - -	6,949	21,034	27,983	30,000

N.B.—These numbers are also included in Table 75.

TABLE 81.—EFFECTIVE STRENGTH of the YEOMANRY CAVALRY at the date of the annual inspection of the several corps for the year 1875.

—	By Ranks.				By Countries.			
	Officers.	Non-commissioned Officers.	Privates and Trumpeters.	All Ranks.	English regiments.	Scotch regiments.	Irish regiments.	Total.
Present at inspection -	683	1,456	7,905	10,044	9,528	516	—	10,044
Absent from inspection. With leave -	143	156	1,336	*1,635	1,530	105	—	*1,635
Without leave	4	38	742	784	702	82	—	784
Number enrolled - -	830	1,650	9,983	12,463	1,760	703	—	12,463
Establishment - -	799	1,756	12,525	15,080	14,274	806	—	15,080
Wanting to complete -	—	106	2,542	2,617	2,514	103	—	2,617
Supernumerary - -	31	—	—	—	—	—	—	—

* Including one regiment not called up for permanent duty.

TABLE 82.—STATE of the VOLUNTEER FORCE on the 1st November 1875, showing the numbers in each of the military districts.

District.	All Ranks.								
	Maximum Establishment.	Supernumeraries authorised.	Efficients.	Non-efficients.	Total enrolled.	Who have obtained certificates of proficiency.			Present at annual inspection, including the Staff.
						Officers.	Serjeants.	Total.	
Northern -	80,534	1,110	60,586	3,516	64,102	1,465	3,461	4,926	52,171
Eastern - -	15,722	99	10,111	1,011	11,122	364	668	1,032	8,985
Western - -	27,773	695	20,507	1,282	21,789	495	1,130	1,625	17,311
Southern -	8,551	140	5,485	512	5,997	146	369	515	4,607
Chatham -	—	—	—	—	—	—	—	—	—
South-eastern -	9,414	120	6,006	568	6,574	181	434	615	5,437
Home - -	39,203	180	24,267	2,984	27,251	755	1,618	2,373	21,976
Woolwich -	1,880	50	1,235	144	1,379	36	98	134	1,159
Aldershot -	—	—	—	—	—	—	—	—	—
North Britain -	55,184	939	40,512	2,354	42,866	1,264	2,385	3,649	34,107
Jersey - -	—	—	—	—	—	—	—	—	—
Guernsey and Alderney -	—	—	—	—	—	—	—	—	—
Total -	238,261	3,333	168,709	12,371	181,080	4,706	10,163	14,869	145,753

TABLE 83.—STATE of the VOLUNTEER FORCE on the 1st November 1875, showing the different arms of the service.

Arms.	All Ranks.								
	Maximum Establishment.	Supernumeraries authorised.	Efficients.	Non-efficients.	Total enrolled.	Who have obtained certificates of proficiency.			Present at annual inspection, including the Staff.
						Officers.	Serjeants.	Total.	
Light Horse -	660	9	366	102	468	22	14	36	358
Artillery -	43,093	690	31,987	2,634	34,621	843	2,060	2,903	27,220
Engineer -	8,732	90	6,303	735	7,038	139	368	507	5,440
Mounted Rifle -	240	—	139	38	177	10	5	15	140
Rifle - -	185,536	2,544	129,914	8,862	138,776	3,692	7,716	11,408	112,595
Total -	238,261	3,333	168,709	12,371	181,080	4,706	10,163	14,869	145,753

TABLE 84.—EFFECTIVE STRENGTH of the ARMY RESERVE on the 1st January in each year from 1861 to 1876.

Year.	1st Class.		2nd Class.			Total.
	Reserve of 1870.	Reserve of 1867.	Reserve of 1867 (*a.*)	Reserve of 1859 (*b.*)	Enrolled Pensioners (*c.*)	
1861 - -	—	—	—	283	—	283
1862 - -	—	—	—	572	—	572
1863 - -	—		—	914	—	914
1864 - -	—	—	—	1,370	—	1,370
1865 - -	—	—	—	1,832	—	1,832
1866 - -	—	—	—	2,596	—	2,596
1867 - -	—	—	—	3,258	—	3,258
1868 - -	—	—	—	3,858	—	3,858
1869 - -	—	1,006	1,027	2,847	13,068	17,948
1870 - -	—	1,939	1,151	2,734	14,643	20,467
1871 - -	2,676	772	800	2,555	15,667	22,470
1872 - -	6,659	363	720	2,325	19,183	29,250
1873 - -	6,563	314	716	2,227	20,861	30,681
1874 - -	7,376	243	667	2,112	20,648	31,046
1875 - -	7,676	169	675	1,979	19,560	30,059
1876 - -	5,991	60	706	1,866	19,425	28,048

(*a.*) Enrolment suspended 23rd February 1869.

(*b.*) Enrolment suspended 18th August 1866.

(*c.*) Enrolled pensioners merged in the 2nd Class Army Reserve under the Army Reserve Regulations, dated 9th May 1868.

TABLE 85.—AGES of the Men belonging to the Army Reserve in 1873, 1875, and 1876.

Date.	1st Class.					2nd Class (including Enrolled Pensioners).					General Total.
	Under 30 years.	30 to 35 years.	35 to 40 years.	Over 40 years.	Total.	Under 30 years.	30 to 35 years.	35 to 40 years.	Over 40 years.	Total.	
30th November 1873 - - -	No returns compiled.				7,477	87	812	2,746	20,017	23,662	31,139
1st January 1875 - - -	No returns compiled.				7,845	100	672	2,786	18,656	22,214	30,059
1st January 1876 - - -	2,796	1,725	1,433	97	6,051	70	494	3,049	18,384	21,997	28,048

TABLE 86.—AGES of the Men belonging to the Militia and the Militia Reserve in 1872, 1873, 1875, and 1876.

Date.	Militia.							Militia Reserve (included in foregoing numbers).						
	Under 17 years.	17 to 19 years.	19 to 25 years.	25 to 30 years.	30 to 35 years.	Over 35 years.	Total.	Under 17 years.	17 to 19 years.	19 to 25 years.	25 to 30 years.	30 to 35 years.	Over 35 years.	Total.
31st March 1872	1,310	17,975	48,041	22,054	10,152	4,914	104,446	53	3,022	14,529	6,292	2,005	443	26,344
30th Nov. 1873 -	1,258	14,993	46,402	22,104	11,044	5,286	101,087*	39	1,275	15,520	7,851	2,845	756	28,286
1st Jan. 1875 -	1,900	16,817	46,172	22,691	11,107	8,427	107,114†	—	783	14,076	8,031	3,439	884	27,213
1st Jan. 1876 -	1,769	17,235	46,255	21,705	11,272	8,099	106,335†	1	669	13,609	7,928	3,385	844	26,436

* Exclusive of Permanent Staff.
† Including Permanent Staff.

TABLE 87.—EFFECTIVE STRENGTH of the MILITIA at the date of the inspection of the several corps in each year from 1861 to 1875.

Years.	BY RANKS.							BY COUNTRIES.				BY ARMS.			
	Officers.	Permanent Staff.		Serjeants.	Corporals.	Privates.	All Ranks.	English regiments.	Scotch regiments.	Irish regiments.	Total.	Artillery.	Infantry.	Rifles.	All Arms.
		Serjeants.	Drummers.												
1861	2,366	3,667				61,661	67,694	45,458	6,508	15,728	67,694	No returns compiled.			
1862	3,118	5,348				100,850	109,316	70,703	10,448	28,165	109,316				
1863	3,034	4,500				105,010	112,544	72,507	10,228	29,809	112,544				
1864	3,012	4,563				106,428	114,003	73,620	10,283	30,100	114,003				
1865	2,952	4,567				94,379	101,898	65,741	9,527	26,630	101,898				
1866	2,128	3,435				66,986	72,549	63,096	9,453	Not trained.	72,549				
1867	2,138	3,436				67,731	73,305	63,811	9,494		73,305				
1868	2,106	3,516	908	Included with Permnt. Staff.	2,757	70,781	80,068	69,896	10,172		80,068				
1869	2,128	3,538	909		2,814	75,830	85,219	74,485	10,734		85,219				
1870	2,097	2,530	882	950	2,773	74,429	83,661	72,956	10,705		83,661	9,389	62,439	11,833	83,661
1871	3,293	3,418	1,195	1,261	3,630	94,864	107,661	74,550	10,895	22,216	107,661	13,035	76,312	18,314	107,661
1872	3,371	3,412	1,195	1,250	3,567	103,285	116,080	79,026	11,936	25,118	116,080	13,638	83,176	19,266	116,080
1873	3,263	3,353	1,195	1,260	3,559	103,352	115,982	77,376	11,738	26,868	115,982	13,960	82,060	19,962	115,982
1874	3,298	3,413	1,195	2,030	4,218	98,525	112,679	73,723	11,982	26,974	112,679	13,878	78,977	19,824	112,679
1875	3,353	3,363	1,207	2,358	4,510	101,416	116,207	75,135	12,051	29,021	116,207	13,566	81,270	21,371	116,207

TABLE 88.—EFFECTIVE STRENGTH of the YEOMANRY CAVALRY at the date of the annual inspection of the several corps in each year from 1870 to 1875.

Year.	By Ranks.				By Countries.			
	Officers.	Non-Commissioned Officers.	Privates and Trumpeters.	All Ranks.	English regiments.	Scotch regiments.	Irish regiments.	Total.
1870	929	1,904	12,149	14,982	13,869	1,113	—	14,982
1871	836	1,552	11,419	13,807	13,097	710	—	13,807
1872	838	1,615	10,662	13,115	12,436	679	—	13,115
1873	830	1,577	10,214	12,621	11,936	685	—	12,621
1874	843	1,674	10,298	12,815	12,149	666	—	12,815
1875	830	1,650	9,983	12,463	11,760	703	—	12,463

TABLE 89.—STATE of the VOLUNTEER FORCE in each year from 1863 to 1875.

ALL RANKS.

Year.	Maximum Establishment.	Supernumeraries authorised.	Efficient.	Non-efficient.	Number enrolled.	Extra-efficient.	Officers and Serjeants who have obtained certificates of proficiency.	Present at inspection.	Per-centage of enrolled members who were		
									Efficient.	* Extra-efficient.	Present at inspection.
1863	226,156	—	113,511	49,424	162,935	47,871	—	—	69·66	34·96	—
1864	225,490	—	123,707	46,837	170,544	62,626	—	—	72·53	44·55	—
1865	226,661	—	133,848	44,636	178,484	65,980	—	—	74·99	45·04	—
1866	229,402	—	142,849	38,716	181,565	78,285	—	—	78·67	52·96	—
1867	235,812	—	155,216	32,648	187,864	90,588	—	—	82·62	59·45	—
1868	245,748	—	170,298	28,896	199,194	102,224	—	—	85·49	63·37	—
1869	244,931	—	168,477	26,810	195,287	105,560	—	—	86·27	66·88	—
1870	244,966	—	170,671	23,222	193,893	113,761	8,457	139,901	88·02	72·7	72·15
1871	246,232	—	172,619	19,989	192,608	117,721	10,642	138,334	89·62	75·6	71·82
1872	244,818	—	160,737	17,542	178,279	114,080	11,582	137,922	90·16	79·02	77·36
1873	240,067	—	153,216	18,721	171,937	—	12,911	135,115	89·11	—	78·58
1874	236,685	3,252	161,100	14,287	175,387	—	14,152	139,858	91·85	—	79·74
1875	238,261	3,333	168,709	12,371	181,080	—	14,869	145,753	93·16	—	80·49

* This column does not apply to Artillery Volunteers.

Horse Guards, War Office,
31st January 1877.

C. H. ELLICE, Adjutant General.

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ABSTRACT

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OF

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DATED

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IN

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War Office, December 1875.

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Cambridge	11	Hants	28
Cardigan	11	Haverfordwest	29
Carmarthen	12	Hereford	29
Carnarvon	12	Herts	29
Cheshire	12	Huntingdon	30
Cinque Ports	14	Inverness	30
Clackmannan	14	Isle of Man	31
Cornwall	15	Isle of Wight	31
Cromarty	16	Kent	31
Cumberland	16	Kincardine	33
Denbigh	16	Kinross	33
Derby	17	Kirkcudbright	34
Devon	17		

County.	Page.	County.	Page.
Lanark	34	Renfrew	47
Lancashire	35	Ross	48
Leicester	37	Roxburgh	48
Lincoln	38	Selkirk	49
Linlithgow	39	Shropshire	49
London	39	Somerset	49
Middlesex	40	Stafford	50
Midlothian	41	Stirling	52
Monmouth	41	Suffolk	52
Montgomery	42	Surrey	53
Nairn	42	Sussex	54
Newcastle-on-Tyne	42	Sutherland	55
Norfolk	43	Tower Hamlets	56
Northampton	43	Warwick	56
Northumberland	44	Westmoreland	56
Nottingham	45	Wigtown	57
Orkney	45	Wilts	57
Oxford	45	Worcester	58
Peebles	46	York, E. R.	58
Pembroke	46	„ N. R.	59
Perth	46	„ W. R.	60
Radnor	47		

ABSTRACT OF ANNUAL RETURNS,

DATED 1st NOVEMBER 1875.

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
Aberdeenshire	Artillery ..	..	1	80	..	53	7	60	3	5	49
			3	400	..	354	24	378	9	25	275
			5	80	..	72	..	72	1	4	62
				560	..	479	31	510	13	34	386
		1	Staff	12	..	3	..	3	..	..	3
	Total ..	..	..	572	..	482	31	513	13	34	389
	Rifle	..	1	1,100	..	775	7	782	28	42	646
			2	100	..	62	..	62	4	4	48
			3	100	..	64	3	67	1	..	51
			4	100	..	57	4	61	2	3	40
			5	100	..	58	2	60	3	4	53
			6	100	..	63	1	64	2	3	60
			7	100	..	100	..	100	3	5	88
			8	100	..	67	4	71	2	3	51
			9	200	..	134	2	136	5	13	96
			10	100	..	95	1	96	4	6	68
			11	100	..	73	1	74	2	1	58
			12	100	..	61	..	61	3	3	52
			13	100	..	99	..	99	3	5	76
			14	100	..	36	29	65	2	2	49
			15	100	..	43	18	61	2	2	41
			16	100	..	67	..	67	2	3	54
			17	200	..	108	12	120	6	9	98
			18	100	..	52	8	60	1	2	44
			19	100	..	72	3	75	3	5	66
			20	100	..	54	6	60	4	6	53
			21	200	..	158	11	169	5	10	121
			22	100	..	91	8	99	3	5	65
			23	100	..	100	..	100	3	5	91
			24	100	..	..	..	..	..	..	31
			25	100	..	70	1	71	2	4	56
			26	100	..	70	..	70	4	5	61
				3,900	..	2,629	121	2,750	99	150	2,217
		1	Staff	10	..	16	2	18	1	..	13
		2	,,	7	..	9	1	10	1	..	8
		3	,,	7	..	13	..	13	2	..	12
	Total ..	..	..	3,924	..	2,667	124	2,791	103	150	2,250

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual In-
									Officers.	Serjeants.	
	COUNTY SUMMARY.										
Aberdeenshire —*cont.*	Artillery ..	..	..	560	..	479	31	510	13	34	3
	Rifle	..	..	3,900	..	2,629	121	2,750	99	150	2,2
				4,460	..	3,108	152	3,260	112	184	2,6
			Staff	36	..	41	3	44	4	..	3
	Total ..	..	..	4,496	..	3,149	155	3,304	116	184	2,6
Anglesey ..	Artillery ..		3	80	50	58	3	61	2	5	
	Total ..	..	..	80	50	58	3	61	2	5	
Argyllshire ..	Artillery ..	..	1	160	..	82	28	110	2	4	
			3	80	..	69	11	80	3	4	
			6	160	..	112	32	144	4	9	1
			7	80	..	49	5	54	3	5	
			8	80	..	59	6	65	2	4	
			9	49	..	36	4	40	1	3	
			10	80	..	35	7	42	1	3	
			11	80	..	37	7	44	2	1	
			12	80	..	52	2	54	2	5	
				849	..	531	102	633	20	38	5
		1	Staff	12	..	7	1	8	4	..	
	Total ..	..	..	861	..	538	103	641	24	38	5
	Rifle	..	2	100	..	75	..	75	3	5	
			3	200	..	191	..	191	6	11	1
			7	100	..	74	..	74	3	4	
			8	100	..	70	2	72	2	3	
			13	200	..	149	2	151	3	9	
			14	100	..	47	13	60	3	3	
				800	..	606	17	623	20	35	4
		1	Staff	10	..	11	1	12	4	..	
	Total ..	..	..	810	..	617	18	635	24	35	4

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
COUNTY SUMMARY.											
gyllshire— *cont.*	Artillery ..	..	..	849	..	531	102	633	20	38	505
	Rifle			800	..	606	17	623	20	35	479
				1,649	..	1,137	119	1,256	40	73	984
			Staff	22	..	18	2	20	8	..	15
	Total ..	..	..	1,671	..	1,155	121	1,276	48	73	999
rshire ..	Artillery ..	..	1	80	10	70	7	77	2	5	55
			2	160	..	140	3	143	4	9	128
			3	80	..	52	2	54	2	5	38
			4	129	..	109	..	109	3	7	93
			5	129	..	86	7	93	1	7	69
				578	10	457	19	476	12	33	383
		1	Staff	10	..	4	..	4	..	..	4
	Total ..	..	..	588	10	461	19	480	12	33	387
	Rifle	..	1	100	..	99	1	100	3	6	77
			2	100	..	42	59	101	2	6	58
			3	100	..	65	14	79	3	4	56
			4	100	..	73	12	85	3	6	69
			5	100	..	72	..	72	3	5	71
			6	100	..	97	3	100	3	6	80
			7	100	..	50	13	63	..	4	49
			8	100	..	48	13	61	..	4	40
			10	100	..	79	2	81	3	5	81
			11	100	..	59	15	74	3	3	54
			12	100	..	67	2	69	1	3	56
			13	100	..	70	..	70	3	5	62
			14	100	..	66	10	76	1	3	53
			15	100	..	73	8	81	3	5	73
			16	100	..	79	..	79	2	5	64
			17	100	..	73	..	73	1	5	71
				1,600	..	1,112	152	1,264	34	75	1,014
		1	Staff	10	..	8	..	8	1	..	8
		2	,,	10	..	10	..	10	1	..	10
	Total ..	..	..	1,620	..	1,130	152	1,282	36	75	1,032
COUNTY SUMMARY.											
	Artillery ..	..	..	578	10	457	19	476	12	33	383
	Rifle	..	..	1,600	..	1,112	152	1,264	34	75	1,014
				2,178	10	1,569	171	1,740	46	108	1,397
			Staff	30	..	22	..	22	2	..	22
	Total ..	..	..	2,208	10	1,591	171	1,762	48	108	1,419

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency, Officers.	Serjeants.
Banffshire ..	Artillery ..	..	1	80	..	42	9	51	..	2
			2	80	..	47	4	51	1	4
			3	80	..	..	..	..	..	..
			4	80	..	63	2	65	2	3
			5	80	..	50	8	58	..	2
				400	..	202	23	225	3	11
		1	Staff	5	..	2	..	2	1	..
	Total ..	..	..	405	..	204	23	227	4	11
	Rifle	..	1	100	..	81	..	81	2	3
			2	100	..	64	3	67	2	2
			3	100	..	91	9	100	1	3
			5	100	..	96	1	97	1	1
			6	100	..	54	12	66	2	3
			7	159	..	124	1	125	4	6
				659	..	510	26	536	12	18
		1	Staff	7	..	9	1	10	1	..
	Total ..	..	..	666	..	519	27	546	13	18
	COUNTY SUMMARY.									
	Artillery ..	..	..	400	..	202	23	225	3	11
	Rifle	..	..	659	..	510	26	536	12	18
				1,059	..	712	49	761	15	29
			Staff	12	..	11	1	12	2	..
	Total ..	..	..	1,071	..	723	50	773	17	29
Bedfordshire ..	Rifle	..	1	100	..	95	5	100	3	5
			2	100	..	47	16	63	2	2
			4	100	..	58	3	61	2	5
			5	100	..	52	4	56	3	3
			6	100	30	109	..	109	3	5
			7	100	..	82	..	82	3	6
			8	100	..	49	7	56	2	5
				700	30	492	35	527	18	31
		1	Staff	7	..	7	..	7	2	..
	Total ..	..	..	707	30	499	35	534	20	31

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
rkshire ..	Rifle	..	1	1,300	..	997	26	1,023	32	60	931
rwickshire ..	Artillery ..	..	1	80	..	50	..	50	2	..	39
			2	80	..	52	..	52	1	..	42
	Total ..	..	..	160	..	102	..	102	3	..	81
	Rifle	..	1	100	..	81	..	81	2	6	77
			2	100	..	83	1	84	2	6	75
			3	100	..	77	..	77	3	5	72
			4	100	..	70	2	72	1	6	66
			5	100	..	90	3	93	2	5	86
			6	100	..	74	2	76	3	6	74
			7	100	..	63	9	72	2	6	60
				700	..	538	17	555	15	40	510
		1	Staff	7	..	12	..	12	3	..	12
	Total ..	..	..	707	..	550	17	567	18	40	522
	COUNTY SUMMARY.										
	Artillery ..	..	..	160	..	102	..	102	3	..	81
	Rifle	..	..	700	..	538	17	555	15	40	510
				860	..	640	17	657	18	40	591
			Staff	7	..	12	..	12	3	..	12
	Total ..	..	..	867	..	652	17	669	21	40	603
vick-on-weed	Artillery ..	..	1	160	..	107	9	116	4	7	84
	Rifle	..	1	100	..	62	5	67	3	3	54

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual In-
									Officers.	Serjeants.	
	COUNTY SUMMARY.										
Berwick-on-Tweed—*cont.*	Artillery ..	..	..	160	..	107	9	116	4	7	
	Rifle	..	..	100	..	62	5	67	3	3	
	Total ..	..	..	260	..	169	14	183	7	10	
Brecknockshire.	Rifle	..	1	159	..	95	2	97	2	7	
			2	100	..	74	5	79	1	1	
			3	159	..	70	3	73	..	3	
			4	100	..	61	3	64	..	4	
			5	100	..	58	3	61	1	3	
			6	100	..	62	..	62	1	1	
				718	..	420	16	436	5	19	
		1	Staff	7	..	8	2	10	3	..	
	Total ..	..	..	725	..	428	18	446	8	19	
Buckingham ..	Rifle	..	1	500	..	422	4	426	9	29	
Bute	Artillery ..	..	1	160	..	53	36	89	3	4	
			2	80	..	46	6	52	2	3	
	Total ..	..	..	240	..	99	42	141	5	7	
	Rifle	..	1	100	..	65	..	65	3	4	
	COUNTY SUMMARY.										
	Artillery ..	..	..	240	..	99	42	141	5	7	
	Rifle	..	..	100	..	65	..	65	3	4	
	Total ..	..	..	340	..	164	42	206	8	11	

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
hness-shire	Artillery ..	..	1	160	..	71	15	86	..	6	54
			2	160	..	101	10	111	3	2	77
			4	80	..	61	3	64	1	5	48
			5	80	..	70	..	70	3	2	59
			6	80	..	50	8	58	2	..	40
				560	..	353	36	389	9	15	278
		1	Staff	10	..	6	..	6	2	..	3
	Total ..	..	..	570	..	359	36	395	11	15	281
	Rifle	..	1	100	..	100	..	100	3	5	83
			2	159	..	120	..	120	1	6	82
			3	100	..	90	..	90	1	1	63
			4	100	..	67	..	67	1	5	53
	Total ..	..	..	459	..	377	..	377	6	17	281
	COUNTY SUMMARY.										
	Artillery ..	..	..	560	..	353	36	389	9	15	278
	Rifle	..	..	459	..	377	..	377	6	17	281
				1,019	..	730	36	766	15	32	559
			Staff	10	..	6	..	6	2	..	3
	Total ..	..	..	1,029	..	736	36	772	17	32	562
bridgeshire	Rifle	..	1	400	..	213	27	240	5	15	190
			2	100	..	69	7	76	3	5	59
			3	600	..	186	186	372	13	8	229
			4	100	..	50	7	57	2	4	45
			5	100	..	77	..	77	3	6	74
			6	100	..	67	..	67	3	5	61
				1,400	..	662	227	889	29	43	658
		1	Staff	14	..	12	1	13	2	..	8
	Total ..	..	..	1,414	..	674	228	902	31	43	666
ligan ..	Rifle	..	1	100	..	73	..	73	3	4	51

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers pre-
									Officers.	Serjeants.	
Carmarthen ..	Rifle	..	1 2 5	100 200 200	.. .. ..	55 156 109	7 17 63	62 173 172	1 2 3	4 8 6	
	Total ..	..	..	500	..	320	87	407	6	18	
Carnarvon ..	Artillery ..	..	1	80	..	48	4	52	1	4	
	Rifle	..	2 3 4 5	100 100 100 100	.. .. 60 ..	.. 95 75 ..	.. 5 7 ..	.. 100 82 ..	.. 1 1 ..	.. 4 2 ..	
	Total ..	..	..	400	60	170	12	182	2	6	
	COUNTY SUMMARY.										
	Artillery ..	..	..	80	..	48	4	52	1	4	
	Rifle	..	..	400	60	170	12	182	2	6	
	Total ..	..	..	480	60	218	16	234	3	10	
Cheshire ..	Artillery ..	..	2 3 4	240 80 80	.. .. ..	209 79 50	23 .. 5	232 79 55	6 2 ..	15 5 5	
				400	..	338	28	366	8	25	
		1	Staff	10	..	4	..	4	..	..	
	Total ..	..	..	410	..	342	28	370	8	25	
	Engineer ..	..	1	400	..	279	6	285	5	23	

ounty.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Serjeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
ire—*cont.*	Rifle	..	1	100	..	70	1	71	3	5	56
			2	100	30	95	10	105	3	6	93
			3	100	..	69	..	69	3	5	54
			4	100	..	96	2	98	2	5	77
			5	200	..	149	2	151	3	11	146
			6	400	..	240	..	240	9	15	194
			7	200	..	69	8	77	1	4	61
			8	300	..	256	1	257	8	12	230
			11	100	..	60	2	62	1	3	56
			12	200	..	140	4	144	3	9	108
			13	300	..	205	11	216	8	10	169
			14	159	..	88	3	91	..	1	67
			15	100	60	76	..	76	1	4	75
			16	100	..	94	1	95	2	5	85
			17	100	..	96	2	98	3	5	91
			18	100	..	100	..	100	3	5	88
			19	100	..	97	..	97	2	5	86
			20	100	..	100	..	100	2	5	78
			21	100	..	99	..	99	3	5	94
			22	200	..	170	2	172	2	7	160
			23	100	..	59	3	62	..	3	60
			24	100	..	49	11	60	2	2	51
			26	100	..	73	3	76	1	6	66
			27	100	..	52	5	57	2	4	49
			28	100	..	76	..	76	2	7	70
			29	100	..	100	..	100	3	5	82
			30	100	..	90	3	93	3	5	79
			31	100	..	91	2	93	2	3	86
			32	100	..	69	5	74	..	5	75
			33	100	.	82	4	86	2	2	70
			35	100	..	76	..	76	3	5	74
			36	259	..	246	3	249	6	14	208
				4,518	90	3,432	88	3,520	88	188	3,038
		1	Staff	10	..	10	..	10	2	..	10
		2	,,	10	..	7	3	10	2	..	8
		3	,,	7	..	9	..	9	4	..	8
		4	,,	10	..	9	..	9	3	..	9
		5	,,	10	..	12	..	12	4	..	11
	Total ..	..	..	4,565	90	3,479	91	3,570	103	188	3,084

COUNTY SUMMARY.

Artillery ..	..	..	400	..	338	28	366	8	25	227
Engineer ..	..	..	400	..	279	6	285	5	23	225
Rifle	..	..	4,518	90	3,432	88	3,520	88	188	3,038
			5,318	90	4,049	122	4,171	101	236	3,490
		Staff	57	..	51	3	54	15	..	49
Total ..	..	..	5,375	90	4,100	125	4,225	116	236	3,539

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year
									Officers.	Serjeants	
Cinque Ports ..	Artillery ..	..	1	160	..	88	13	101	4	11	71
			2	80	..	45	9	54	2	4	44
			3	160	30	111	3	114	2	9	106
			4	80	..	55	2	57	2	5	45
			5	80	..	26	17	43	..	5	27
			6	320	..	180	57	237	2	15	177
			7	80	..	63	6	69	1	5	62
			8	129	..	80	15	95	2	7	70
			9	160	..	118	17	135	3	9	98
				1,249	30	766	139	905	18	70	700
		1	Staff	12	..	8	..	8	1	..	6
	Total ..	..	..	1,261	30	774	139	913	19	70	706
	Rifle		1	159	..	86	7	93	3	8	94
			3	100	..	38	22	60	1	4	39
			9	100	..	27	16	43	..	2	25
				359	..	151	45	196	4	14	158
		1	Staff	7	..	7	..	7	1	..	6
	Total ..	..	..	366	..	158	45	203	5	14	164
	COUNTY SUMMARY.										
	Artillery ..	..	..	1,249	30	766	139	905	18	70	700
	Rifle	..	..	359	..	151	45	196	4	14	158
				1,608	30	917	184	1,101	22	84	858
			Staff	19	..	15	..	15	2	..	12
	Total ..	..	..	1,627	30	932	184	1,116	24	84	870
Clackmannan ..	Rifle	..	1	400	..	364	7	371	14	15	332
			2	100	..	87	4	91	2	5	76
				500	..	451	11	462	16	20	408
		1	Staff	7	..	10	..	10	3	..	10
	Total ..	..	..	507	..	461	11	472	19	20	418

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
nwall ..	Artillery ..	..	1	80	50	88	..	88	2	5	73
			2	80	..	50	2	52	1	5	46
			3	80	..	53	2	55	2	4	42
			4	80	..	54	..	54	1	5	44
			5	80	..	63	1	64	1	1	60
			7	49	..	41	..	41	1	..	34
			8	80	..	80	..	80	3	5	69
			10	80	..	79	1	80	1	5	68
			11	80	..	51	1	52	2	1	39
			12	80	..	80	..	80	2	5	66
			13	80	..	65	..	65	3	3	57
				849	50	704	7	711	19	39	598
		1	Staff	10	..	9	..	9	1	..	8
	Total ..	..	..	859	50	713	7	720	20	39	606
	Rifle	..	1	100	50	150	..	150	3	6	121
			2	100	30	130	..	130	3	6	72
			3	100	30	99	2	101	3	6	69
			4	100	30	100	..	100	3	5	67
			5	100	60	129	..	129	3	7	122
			6	100	..	85	6	91	2	3	82
			7	100	..	61	7	68	2	2	55
			9	100	..	97	..	97	2	5	84
			10	100	60	94	..	94	2	3	84
			11	100	..	95	..	95	3	5	61
			12	100	30	98	..	98	3	6	64
			13	100	25	68	..	68	3	5	64
			15	100	..	73	3	76	3	4	52
			16	100	..	72	2	74	..	4	64
			17	100	..	100	..	100	3	5	80
			18	100	..	51	12	63	2	3	38
			19	100	..	72	..	72	1	4	53
			20	100	..	97	2	99	1	5	68
			21	100	..	67	3	70	3	4	60
			22	100	..	68	..	68	2	3	59
				2,000	315	1,806	37	1,843	47	91	1,419
		1	Staff	10	..	13	..	13	2	..	12
		2	”	10	..	10	2	12	2	..	9
	Total ..	..	..	2,020	315	1,829	39	1,868	51	91	1,440
	COUNTY SUMMARY.										
	Artillery ..	..	..	849	50	704	7	711	19	39	598
	Rifle	..	..	2,000	315	1,806	37	1,843	47	91	1,419
				2,849	365	2,510	44	2,554	66	130	2,017
			Staff	30	..	32	2	34	5	..	29
	Total ..	..	..	2,879	365	2,542	46	2,588	71	130	2,046

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year
									Officers.	Serjeants.	
Cromarty ..	Artillery ..	..	1	80	..	53	..	53	2	..	45
Cumberland ..	Artillery ..	..	1	80	..	80	..	80	3	7	54
			2	160	..	96	34	130	2	6	67
			3	80	..	80	..	80	2	6	74
			5	80	..	..	72	72	..	..	..
				400	..	256	106	362	7	19	195
		1	Staff	5	..	4	..	4	..	..	4
	Total ..	..	..	405	..	260	106	366	7	19	199
	Rifle	..	1	300	..	190	8	198	7	12	172
			2	100	..	75	2	77	1	5	63
			3	100	..	75	2	77	1	5	56
			4	100	..	81	1	82	2	4	70
			5	200	..	129	8	137	6	8	127
			6	100	..	64	4	68	2	3	57
			7	100	..	74	5	79	1	5	66
			8	100	..	84	2	86	1	5	73
			10	100	..	71	3	74	..	5	51
			11	100	..	81	..	81	2	5	70
				1,300	..	924	35	959	23	57	805
		1	Staff	12	..	14	..	14	2	..	13
	Total ..	..	..	1,312	..	938	35	973	25	57	818
	COUNTY SUMMARY.										
	Artillery ..	..	..	400	..	256	106	362	7	19	195
	Rifle	..	..	1,300	..	924	35	959	23	57	805
				1,700	..	1,180	141	1,321	30	76	1,000
			Staff	17	..	18	..	18	2	..	17
	Total ..	..	..	1,717	..	1,198	141	1,339	32	76	1,017
Denbigh ..	Rifle	..	1	159	..	159	..	159	5	9	152
			2	100	..	64	8	72	..	4	63
			3	100	..	88	..	88	2	6	65
			4	59	..	58	..	58	1	1	32
			5	100	..	99	1	100	2	5	95
			6	100	..	87	13	100	2	5	73
			7	59	..	26	9	35	..	1	26
			9	100	..	76	12	88	2	5	68
				777	..	657	43	700	14	36	574
		1	Staff	7	..	8	..	8	1	..	8
	Total ..	..	..	784	..	665	43	708	15	36	582

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
erbyshire ..	Rifle	..	1	100	..	98	..	98	3	5	76
			3	100	..	84	1	85	2	2	84
			4	100	..	93	..	93	3	5	80
			5	200	..	170	2	172	5	8	139
			7	100	..	65	15	80	1	2	63
			8	100	..	77	10	87	2	5	79
			9	100	..	64	9	73	2	..	63
			10	100	..	49	11	60	2	2	48
			11	100	..	54	10	64	1	3	55
			12	200	..	136	..	136	4	7	108
			13	159	..	117	2	119	2	7	108
			15	200	..	165	6	171	5	11	141
			17	100	..	77	..	77	1	3	79
			18	100	..	96	..	96	2	1	97
			19	100	..	88	..	88	2	5	72
			20	100	..	94	..	94	2	3	57
			21	100	..	36	27	63	1	..	32
			22	100	..	81	..	81	2	5	59
				2,159	..	1,644	93	1,737	42	74	1,440
		1	Staff	10	..	13	1	14	3	..	13
		3	„	10	..	16	1	17	3	..	16
	Total ..	..	..	2,179	..	1,673	95	1,768	48	74	1,469
evonshire ..	Artillery ..	..	1	80	..	76	4	80	1	4	66
			3	80	..	75	3	78	2	3	75
			4	80	..	72	2	74	3	5	47
			5	160	..	141	8	149	5	10	117
			6	80	..	36	7	43	3	5	28
			7	80	..	46	6	52	2	5	40
			8	80	..	40	10	50	1	3	33
			9	80	..	51	2	53	1	5	35
			10	80	..	53	4	57	2	3	46
			11	80	..	46	7	53	..	5	39
			12	320	..	262	23	285	6	16	201
			13	160	20	171	5	176	5	6	157
			14	80	..	44	22	66	1	..	46
				1,440	20	1,113	103	1,216	32	70	930
		1	Staff	10	..	8	..	8	2	..	8
		2	„	10	..	8	..	8	..	..	7
	Total ..	..	..	1,460	20	1,129	103	1,232	34	70	945
	Engineer ..	..	1	200	..	136	43	179	3	10	97
	Mounted Rifle	..	1	60	..	32	17	49	1	..	38

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year
									Officers.	Serjeants.	
Devonshire—*cont.*	Rifle	..	1	1,159	..	463	61	524	8	25	438
			2	600	..	418	..	418	18	27	322
			3	300	..	182	13	195	7	15	148
			5	100	..	69	2	71	3	5	70
			6	200	..	150	2	152	3	10	105
			8	100	..	58	7	65	..	4	52
			9	100	..	65	..	65	2	5	57
			10	159	..	85	..	85	1	5	56
			11	100	..	57	3	60	..	4	57
			13	100	..	78	4	82	3	5	74
			14	100	..	66	22	88	..	6	66
			17	100	..	79	..	79	..	6	68
			18	200	..	159	5	164	2	10	144
			21	200	..	198	1	199	4	11	176
			22	200	..	129	1	130	6	11	109
			23	59	..	44	..	44	..	4	36
			25	100	..	62	4	66	2	4	44
			26	100	..	60	..	60	2	5	45
			27	100	..	52	13	65	..	5	56
				4,077	..	2,474	138	2,612	61	167	2,117
		1	Staff	10	..	8	1	9	2	..	8
		2	,,	12	..	9	..	9	2	..	9
		3	,,	7	..	8	..	8	1	..	8
		4	,,	7	..	9	1	10	1	..	9
	Total ..	..	..	4,113	..	2,508	140	2,648	67	167	2,151
	COUNTY SUMMARY.										
	Artillery ..	..	..	1,440	20	1,113	103	1,216	32	70	930
	Engineer ..	..	..	200	..	136	43	179	3	10	97
	Mounted Rifle	..	..	60	..	32	17	49	1	..	38
	Rifle	..	..	4,077	..	2,474	138	2,612	61	167	2,117
				5,777	20	3,755	301	4,056	97	247	3,182
			Staff	56	..	50	2	52	8	..	49
	Total ..	..	..	5,833	20	3,805	303	4,108	105	247	3,231
Dorsetshire ..	Artillery ..	..	1	80	..	70	..	70	1	5	53
			3	80	..	..	..	..	..	..	..
			4	129	..	89	4	93	2	7	63
			5	80	..	36	..	36	1	3	26
			6	80	..	39	..	39	1	5	32
	Total ..	..	..	449	..	234	4	238	5	20	174

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
rsetshire—*cont.*	Rifle	..	1	159	..	101	..	101	3	6	83
			2	100	..	62	3	65	2	3	31
			3	100	..	65	1	66	2	6	63
			4	100	..	100	..	100	1	4	57
			5	100	..	72	5	77	2	4	69
			6	100	..	72	4	76	1	4	50
			7	100	..	68	6	74	2	5	55
			8	100	..	58	3	61	..	4	38
			9	100	..	53	..	53	2	6	51
			10	59	..	29	4	33	1	3	23
			11	100	..	44	17	61	1	4	39
			12	100	..	38	2	40	1	4	29
				1,218	..	762	45	807	18	53	588
		1	Staff	12	..	15	1	16	3	..	16
	Total ..	..	..	1,230	..	777	46	823	21	53	604
	COUNTY SUMMARY.										
	Artillery ..	..	..	449	..	234	4	238	5	20	174
	Rifle	..	..	1,218	..	762	45	807	18	53	588
				1,667	..	996	49	1,045	23	73	762
		1	Staff	12	..	15	1	16	3	..	16
	Total ..	..	..	1,679	..	1,011	50	1,061	26	73	778
mbarton ..	Artillery ..	..	1	80	..	66	3	69	3	5	46
			3	160	..	95	..	95	2	4	93
	Total ..	..	..	240	..	161	3	164	5	9	139
	Rifle	..	1	100	..	60	1	61	3	4	54
			2	159	..	98	2	100	3	3	81
			3	100	30	90	..	90	2	5	80
			4	100	60	92	6	98	3	6	86
			5	100	..	92	3	95	2	6	76
			6	100	30	125	1	126	4	7	117
			7	100	..	61	2	63	3	5	60
			9	100	..	56	11	67	2	4	47
			10	159	..	137	10	147	5	8	124
			11	100	..	66	..	66	2	2	55
			13	100	..	95	4	99	3	5	84
			14	100	..	89	1	90	2	5	77
				1,318	120	1,061	41	1,102	34	60	941
		1	Staff	10	..	14	2	16	..	..	15
	Total ..	..	..	1,328	120	1,075	43	1,118	34	60	956

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year
									Officers.	Serjeants.	
	COUNTY SUMMARY.										
Dumbarton—*cont.*	Artillery ..	..	..	240	..	161	3	164	5	9	13
	Rifle	..	..	1,318	120	1,061	41	1,102	34	60	94
				1,558	120	1,222	44	1,266	39	69	1,08
			Staff	10	..	14	2	16	..	..	1
	Total ..	..	..	1,568	120	1,236	46	1,282	39	69	1,09
Dumfries ..	Mounted Rifle	..	1	60	..	37	8	45	2	..	3
	Rifle	..	1	200	..	138	1	139	3	10	11
			2	100	..	34	13	47	2	3	3
			3	100	..	59	10	69	3	4	5
			4	100	..	49	11	60	2	5	4
			5	100	..	42	7	49	1	3	3
			6	100	..	70	2	72	2	4	6
			7	100	..	73	2	75	3	5	7
			8	100	..	87	4	91	2	3	7
			9	100	..	77	1	78	1	5	6
				1,000	..	629	51	680	19	42	55
		1	Staff	10	..	10	1	11	..	..	1
	Total ..	..	..	1,010	..	639	52	691	19	42	56
	COUNTY SUMMARY.										
	Mounted Rifle	..	..	60	..	37	8	45	2	..	3
	Rifle	..	..	1,000	..	629	51	680	19	42	55
				1,060	..	666	59	725	21	42	59
			Staff	10	..	10	1	11	..	..	1
	Total ..	..	..	1,070	..	676	60	736	21	42	60
Durham ..	Artillery ..	..	1	160	50	168	6	174	2	7	14
			2	960	..	718	6	724	23	50	67
			3	320	..	200	24	224	7	17	17
			4	240	..	238	..	238	4	12	15
	Total ..	..	..	1,680	50	1,324	36	1,360	36	86	1,14
	Engineer ..	..	1	800	..	740	27	767	16	38	54
		1	Staff	10	..	2	..	2	..	..	
				810	..	742	27	769	16	38	54
	Rifle	..	1	300	..	208	16	224	6	11	16
			3	600	..	368	18	386	11	20	30
			4	259	..	138	20	158	1	9	12
	Carried forward		..	1,159	..	714	54	768	18	40	59

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Serjeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct, 1874.
	Bt. forward ..	..	..	1,159	..	714	54	768	18	40	594
urham—*cont.*	Rifle	..	6	200	60	256	3	259	..	12	230
			7	300	..	169	17	186	4	15	152
			8	300	..	142	60	202	3	13	143
			9	200	..	128	27	155	..	6	119
			10	100	..	70	..	70	2	4	61
			11	100	..	41	20	61	2	4	44
			12	100	..	58	5	63	2	4	47
			13	200	..	101	20	121	1	6	97
			14	300	..	152	30	182	6	12	143
			15	200	..	93	26	119	2	9	77
			16	100	..	56	6	62	1	5	47
			20	100	..	60	1	61	..	5	52
			21	100	..	64	4	68	3	4	63
				3,459	60	2,104	273	2,377	44	139	1,869
		1	Staff	10	..	11	1	12	3	..	11
		2	,,	7	..	8	..	8	2	..	8
		3	,,	7	..	5	1	6	..	..	5
		4	,,	7	..	4	..	4	..	..	4
	Total ..	..	..	3,490	60	2,132	275	2,407	49	139	1,897

COUNTY SUMMARY.

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Serjeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct, 1874.
	Artillery ..	..	..	1,680	50	1,324	36	1,360	36	86	1,147
	Engineer ..	..	..	800	..	740	27	767	16	38	547
	Rifle	..	..	3,459	60	2,104	273	2,377	44	139	1,869
				5,939	110	4,168	336	4,504	96	263	3,563
			Staff	41	..	30	2	32	5	..	29
	Total ..	..	..	5,980	110	4,198	338	4,536	101	263	3,592

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Serjeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct, 1874.
dinburgh ..	Artillery ..	..	1	720	..	517	35	552	13	33	426
	Rifle	..	1	2,500	..	1,928	55	1,983	69	114	1,561
			3	400	60	408	30	438	12	20	312
	Total ..	..	..	2,900	60	2,336	85	2,421	81	134	1,873

COUNTY SUMMARY.

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Serjeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct, 1874.
	Artillery ..	..	..	720	..	517	35	552	13	33	426
	Rifle	..	..	2,900	60	2,336	85	2,421	81	134	1,873
	Total ..	..	..	3,620	60	2,853	120	2,973	94	167	2,299

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
Elginshire ..	Artillery ..	..	1	80	..	53	2	55	..	3	39
			2	80	..	79	1	80	1	4	54
	Total ..	..	..	160	..	132	3	135	1	7	93
	Rifle	..	1	200	..	119	4	123	4	3	116
			2	100	..	100	..	100	2	5	85
			3	100	..	91	9	100	1	5	60
			4	100	..	75	..	75	3	5	61
			5	100	..	67	4	71	1	4	57
			6	100	..	69	7	76	2	..	52
			7	159	..	126	8	134	5	6	115
			8	100	..	85	2	87	2	5	82
			9	100	..	76	2	78	1	3	71
				1,059	..	808	36	844	21	36	699
		1	Staff	10	..	15	1	16	2	..	14
	Total ..	..	..	1,069	..	823	37	860	23	36	713
	COUNTY SUMMARY.										
	Artillery ..	..	..	160	..	132	3	135	1	7	93
	Rifle	..	..	1,059	..	808	36	844	21	36	699
				1,219	..	940	39	979	22	43	792
			Staff	10	..	15	1	16	2	..	14
	Total ..	..	..	1,229	..	955	40	995	24	43	806
Essex	Artillery ..	..	1	80	..	64	5	69	1	4	63
			2	129	..	61	27	88	..	6	83
			3	640	..	409	21	430	12	29	321
	Total ..	..	..	849	..	534	53	587	13	39	467
	Rifle	..									
			1	200	..	110	16	126	2	8	91
			2	300	..	189	19	208	5	14	171
			3	200	..	86	23	109	3	6	71
			4	200	..	148	1	149	4	11	103
			5	800	..	649	10	659	18	35	537
			6	200	..	132	1	133	3	7	90
			7	100	..	..	..	..	..	..	..
			9	600	..	497	5	502	9	30	419
			10	100	..	56	6	62	2	3	48
			12	100	..	85	..	85	3	6	72
			15	100	..	60	10	70	3	4	53
			17	100	..	55	3	58	2	4	45
			18	100	..	45	15	60	2	4	41
	Carried forward		..	3,100	..	2,112	109	2,221	56	132	1,741

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
	Bght. forward	..	..	3,100	..	2,112	109	2,221	56	132	1,741
Essex—*cont.* ..	Rifle	..	22	100	..	38	19	57	1	3	37
			23	100	..	80	4	84	2	5	62
				3,300	..	2,230	132	2,362	59	140	1,840
		1	Staff	10	..	10	1	11	3	..	8
		3	,,	12	..	9	2	11	2	..	8
	Total ..	..	..	3,322	..	2,249	135	2,384	64	140	1,856
	COUNTY SUMMARY.										
	Artillery ..	..	..	849	..	534	53	587	13	39	467
	Rifle	..	..	3,300	..	2,230	132	2,362	59	140	1,840
				4,149	..	2,764	185	2,949	72	179	2,307
			Staff	22	..	19	3	22	5	..	16
	Total ..	..	..	4,171	..	2,783	188	2,971	77	179	2,323
Fife	Light Horse ..	..	1	240	..	123	30	153	5	..	124
	Artillery ..	..	1	80	..	53	4	57	1	2	47
			2	80	..	60	4	64	1	5	44
			3	80	..	68	..	68	2	3	59
			4	80	..	40	9	49	..	..	40
			5	129	30	128	1	129	4	7	115
			6	80	..	31	5	36	..	..	29
			7	80	..	55	18	73	2	2	46
			8	129	..	41	6	47	2	3	40
			9	80	..	54	3	57	1	4	40
			10	80	30	101	..	101	2	4	86
			11	80	..	51	1	52	2	4	49
				978	60	682	51	733	17	34	595
		1	Staff	12	..	8	..	8	1	..	8
	Total ..	..	..	990	60	690	51	741	18	34	603
	Rifle	..	1	200	..	134	5	139	5	8	120
			2	200	..	113	6	119	5	8	65
			3	100	..	78	..	78	1	..	53
			4	100	..	79	3	82	1	3	69
	Carried forward		..	600	..	404	14	418	12	19	307

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875
									Officers.	Serjeants.	
	Bt. forward ..			600	..	404	14	418	12	19	307
Fife—*cont.* ..	Rifle	..	5	100	30	79	6	85	3	6	72
			6	200	..	138	2	140	5	8	95
			7	100	..	87	5	92	3	4	52
			8	100	..	99	1	100	2	5	68
			9	100	..	57	4	61	2	5	50
				1,200	30	864	32	896	27	47	644
		1	Staff	10	..	13	1	14	1	..	13
	Total ..	..	..	1,210	30	877	33	910	28	47	657
	COUNTY SUMMARY.										
	Light Horse ..	..	..	240	..	123	30	153	5	..	124
	Artillery ..	..	..	978	60	682	51	733	17	34	595
	Rifle	..	..	1,200	30	864	32	896	27	47	644
				2,418	90	1,669	113	1,782	49	81	1,363
			Staff	22	..	21	1	22	2	..	21
	Total ..	..	..	2,440	90	1,690	114	1,804	51	81	1,384
Flint	Engineer ..	..	1	100	..	85	3	88	2	5	74
	Rifle	..	1	100	..	90	..	90	1	4	73
			2	100	..	68	6	74	2	5	64
			3	100	..	59	9	68	1	4	60
			4	100	..	79	9	88	1	5	83
			5	100	..	50	15	65	1	5	46
			6	100	..	63	4	67	..	3	49
				600	..	409	43	452	6	26	375
		1	Staff	10	..	13	1	14	1	..	13
	Total ..	..	..	610	..	422	44	466	7	26	388
	COUNTY SUMMARY.										
	Engineer ..	..	..	100	..	85	3	88	2	5	74
	Rifle.. ..	..	..	600	..	409	43	452	6	26	375
				700	..	494	46	540	8	31	449
			Staff	10	..	13	1	14	1	..	13
	Total ..	..	..	710	..	507	47	554	9	31	462

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
rfarshire ..	Artillery ..	..	1	240	..	203	5	208	6	15	147
			2	80	..	40	10	50	1	3	33
			3	160	..	114	..	114	5	7	75
			4	480	..	325	112	437	8	26	293
				960	..	682	127	809	20	51	548
		1	Staff	10	..	4	..	4	1	..	3
	Total ..	..	..	970	..	686	127	813	21	51	551
	Rifle	..	1	800	..	391	92	483	21	30	393
			2	200	30	145	10	155	4	11	128
			3	400	..	229	19	248	5	14	190
			5	200	..	123	4	127	3	10	99
			7	200	..	111	9	120	4	8	90
			8	100	..	57	17	74	..	4	46
			9	100	..	51	17	68	3	4	48
			10	600	..	400	1	401	10	26	314
			12	100	..	84	3	87	3	5	77
			13	100	..	58	6	64	1	4	53
				2,800	30	1,649	178	1,827	54	116	1,438
		1	Staff	12	..	12	2	14	2	..	13
	Total ..	..	..	2,812	30	1,661	180	1,841	56	116	1,451

COUNTY SUMMARY.

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Officers.	Serjeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
	Artillery ..	..	..	960	..	682	127	809	20	51	548
	Rifle	..	..	2,800	30	1,649	178	1,827	54	116	1,438
				3,760	30	2,331	305	2,636	74	167	1,986
			Staff	22	..	16	2	18	3	..	16
	Total ..	..	..	3,782	30	2,347	307	2,654	77	167	2,002

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Officers.	Serjeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
lamorgan ..	Artillery ..	..	1	320	..	290	4	294	3	16	145
			2	160	50	175	16	191	2	8	140
			3	720	50	724	17	741	14	41	515
				1,200	100	1,189	37	1,226	19	65	800
		1	Staff	12	..	9	..	9	2	..	5
	Total ..	..	..	1,212	100	1,198	37	1,235	21	65	805

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers pre-
									Officers.	Serjeants.	
Glamorgan—*cont.*	Rifle	..	1	200	..	116	4	120	4	10	
			2	200	..	104	1	105	..	5	
			3	500	..	452	2	454	12	18	
			4	300	..	294	7	301	4	11	
			7	200	..	130	17	147	4	8	
			8	100	..	79	1	80	1	3	
			9	100	..	76	9	85	1	6	
			10	159	..	96	4	100	2	8	
			11	159	..	85	2	87	2	7	
			12	200	..	164	11	175	5	6	
			13	100	..	92	..	92	1	5	
			14	100	..	74	1	75	2	3	
			15	200	..	125	25	150	1	4	
			16	500	..	453	9	462	8	20	
			18	100	..	73	..	73	1	5	
			19	100	..	75	6	81	1	3	
				3.218	..	2,488	99	2,587	49	122	2
		1	Staff	12	..	7	..	7	..	..	
		2	,,	12	...	11	2	13	..	..	
	Total ..	..	..	3,242	..	2,506	101	2,607	49	122	2

COUNTY SUMMARY.

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Officers.	Serjeants.	No. of Volunteers pre-
	Artillery ..	..	..	1,200	100	1,189	37	1,226	19	65	
	Rifle	..	..	3,218	..	2,488	99	2,587	49	122	2,
				4,418	100	3,677	136	3,813	68	187	2,
			Staff	36	..	27	2	29	2	..	
	Total ..	..	..	4,454	100	3,704	138	3,842	70	187	2,

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Officers.	Serjeants.	No. of Volunteers pre-
Gloucestershire	Artillery ..	..	1	480	..	432	11	443	13	21	
			2	80	..	70	10	80	2	..	
			3	80	..	78	2	80	..	2	
				640	..	580	23	603	15	23	
		1	Staff	12	..	4	..	4	..	..	
	Total ..	..	..	652	..	584	23	607	15	23	

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
ucestershire —*cont.*	Engineer ..	..	1	200	..	199	1	200	1	11	188
			2	500	..	479	21	500	10	30	432
				700	..	678	22	700	11	41	620
		1	Staff	12	..	6	..	6	2	..	6
	Total ..	..	..	712	..	684	22	706	13	41	626
	Rifle	..	1	1,000	..	626	41	667	22	42	596
			2	100	..	47	10	57	..	..	42
			3	100	30	81	..	81	3	5	78
			5	100	30	78	6	84	3	4	76
			8	100	..	..	..	..	..	..	..
			9	100	..	61	8	69	..	2	62
			10	200	..	101	9	110	1	4	81
			11	100	30	50	11	61	2	4	48
			12	300	..	130	7	137	1	..	119
			15	100	..	57	13	70	1	2	57
			16	100	..	43	18	61	..	..	42
				2,300	90	1,274	123	1,397	33	63	1,201
		1	Staff	12	..	14	1	15	..	..	14
	Total ..	..	..	2,312	90	1,288	124	1,412	33	63	1,215
	COUNTY SUMMARY.										
	Artillery ..	..	..	640	..	580	23	603	15	23	458
	Engineer. ..	..		700	..	678	22	700	11	41	620
	Rifle	..		2,300	90	1,274	123	1,397	33	63	1,201
				3,640	90	2,532	168	2,700	59	127	2,279
			Staff	36	..	24	1	25	2	..	24
	Total ..	..	..	3,676	90	2,556	169	2,725	61	127	2,303
dington ..	Artillery ..	..	1	80	..	57	6	63	1	4	48
	Rifle	..	1	100	..	56	5	61	3	1	47
			3	100	30	70	4	74	1	3	66
			4	100	..	58	5	63	1	4	49
			5	100	..	58	9	67	2	4	50
			6	59	..	40	4	44	2	1	36
			7	59	..	52	..	52	..	..	35
				518	30	334	27	361	9	13	283
		1	Staff	8	..	10	..	10	2	..	9
	Total ..	..	..	526	30	344	27	371	11	13	292

COUNTY SUMMARY.

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers pre-
									Officers.	Serjeants.	
Haddington—*cont.*	Artillery ..	..	..	80	..	57	6	63	1	4	
	Rifle	..	..	518	30	334	27	361	9	13	
				598	30	391	33	424	10	17	
			Staff	8	..	10	..	10	2	..	
	Total ..	..	..	606	30	401	33	434	12	17	
Hampshire ..	Artillery ..	..	1	160	..	133	17	150	3	9	
			2	640	..	454	..	454	15	36	
			4	80	50	111	4	115	1	5	
				880	50	698	21	719	19	50	
		1	Staff	12	..	7	..	7	..	..	
	Total ..	..	..	892	50	705	21	726	19	50	
	Engineer ..	..	1	100	30	130	..	130	1	7	
	Mounted Rifle	..	1	60	..	23	11	34	3	1	
	Rifle	..	1	200	..	83	39	122	3	9	
			2	400	..	251	26	277	7	21	
			3	100	..	66	2	68	3	5	
			4	100	..	55	8	63	1	2	
			5	500	..	255	10	265	7	20	
			6	200	..	126	24	150	3	10	
			7	100	..	63	..	63	1	..	
			8	100	..	53	9	62	2	4	
			10	100	..	59	4	63	..	4	
			11	100	..	39	23	62	1	3	
			12	100	..	89	9	98	3	5	
			13	100	..	47	35	82	1	5	
			14	100	..	50	10	60	..	4	
			15	100	..	67	15	82	2	6	
			16	100	..	52	10	62	2	5	
			19	200	..	139	6	145	1	11	
			21	100	..	59	3	62	3	5	
			23	100	..	57	4	61	2	..	
			24	100	..	52	9	61	..	..	
			25	100	..	74	11	85	1	5	
				3,000	..	1,736	257	1,993	43	124	1
		1	Staff	10	..	12	..	12	3	..	
		2	”	12	..	11	2	13	3	..	
		4	”	10	..	12	..	12	1	..	
	Total ..	..	..	3,032	..	1,771	259	2,030	50	124	1

ounty.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
	COUNTY SUMMARY.										
pshire—*cont.*	Artillery ..	..	..	880	50	698	21	719	19	50	497
	Engineer ..	..	..	100	30	130	...	130	1	7	131
	Mounted Rifle	..	..	60	..	23	11	34	3	1	23
	Rifle	..	..	3,000	..	1,736	257	1,993	43	124	1,492
				4,040	80	2,587	289	2,876	66	182	2,143
			Staff	44	..	42	2	44	7	..	40
	Total ..	..	..	4,084	80	2,629	291	2,920	73	182	2,183
rfordwest	Rifle	..	1	300	..	225	35	260	4	13	228
ford ...	Rifle	..	1	100	..	97	3	100	2	6	77
			2	100	..	93	..	93	..	6	78
			3	100	..	66	..	66	2	5	54
			4	100	..	50	11	61	3	4	46
			6	100	..	78	..	78	..	4	49
			7	100	..	50	13	63	1	4	42
			8	159	..	126	6	132	2	5	100
				759	..	560	33	593	10	34	446
		1	Staff	10	..	13	..	13	2	..	13
	Total ..	..	..	769	..	573	33	606	12	34	459
fordshire ..	Light Horse ..	..	1	120	..	84	2	86	5	9	71
	Rifle	..	1	200	..	106	14	120	3	10	87
			2	100	..	77	1	78	3	5	72
			3	100	..	90	4	94	3	3	82
			4	100	..	57	3	60	3	4	51
			5	100	..	77	..	77	2	2	65
			6	100	..	58	6	64	1	5	46
			7	100	..	76	5	81	3	4	65
			9	100	..	60	5	65	2	5	56
			10	100	..	32	28	60	1	3	44
				1,000	..	633	66	699	21	41	568
		1	Staff	5	..	8	..	8	..	..	7
		2	,,	7	..	10	..	10	3	..	9
	Total ..	..	..	1,012	..	651	66	717	24	41	584

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers pre-
									Officers.	Serjeants.	
	COUNTY SUMMARY.										
Hertfordshire —*cont.*	Light Horse ..	..	..	120	..	84	2	86	5	9	
	Rifle	..	..	1,000	..	633	66	699	21	41	
				1,120	..	717	68	785	26	50	
			Staff	12	..	18	..	18	3	..	
	Total ..	..	..	1,132	..	735	68	803	29	50	
Huntingdon ..	Light Horse ..	..	1	240	..	121	63	184	10	3	
	Rifle	..	1	200	..	113	11	124	3	9	
	COUNTY SUMMARY.										
	Light Horse ..	..	..	240	..	121	63	184	10	3	
	Rifle	..	..	200	..	113	11	124	3	9	
	Total ..	..	..	440	..	234	74	308	13	12	
Inverness ..	Artillery ..	..	1	480	..	321	9	330	12	27	
	Rifle	..	1	100	..	101	..	101	3	5	
			2	100	..	100	..	100	3	4	
			3	100	..	100	..	100	2	6	
			4	100	..	87	..	87	2	4	
			5	100	..	101	..	101	1	6	
			6	100	..	90	10	100	1	..	
			7	100	..	90	10	100	1	1	
			8	100	..	78	2	80	1	3	
			9	100	..	84	12	96	2	3	
			10	100	..	83	..	83	2	4	
				1,000	..	914	34	948	18	36	
		1	Staff	10	..	12	..	12	2	..	
	Total ..	..	..	1,010	..	926	34	960	20	36	

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
	COUNTY SUMMARY.										
erness—*cont.*	Artillery ..	..	..	480	..	321	9	330	12	27	247
	Rifle	..	..	1,000	..	914	34	948	18	36	772
				1,480	..	1,235	43	1,278	30	63	1,019
			Staff	10	..	12	..	12	2	..	14
	Total ..	..	..	1,490	..	1,247	43	1,290	32	63	1,033
of Man ..	Artillery ..	..	1	160	..	..	58	58	..	..	..
	Rifle	..	2	100	..	67	..	67	2	5	49
	COUNTY SUMMARY.										
	Artillery ..	..	..	160	..	..	58	58	..	..	..
	Rifle	..	..	100	..	67	..	67	2	5	49
	Total ..	..	..	260	..	67	58	125	2	5	49
of Wight ..	Rifle	..	1	200	..	120	11	131	2	10	106
			2	100	30	130	1	131	2	6	81
			4	100	..	70	..	70	2	4	68
			5	100	30	121	9	130	2	6	102
			7	100	..	60	7	67	1	4	58
				600	60	501	28	529	9	30	415
		1	Staff	7	..	11	..	11	2	..	11
	Total ..	..	..	607	60	512	28	540	11	30	426
t	Artillery ..	..	1	160	30	102	14	116	5	11	93
			2	160	..	72	3	75	3	7	60
			5	160	..	78	24	102	5	8	77
			9	400	50	353	89	442	6	25	343
	Carried forward ..			880	80	605	130	735	19	51	573

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers pre-
									Officers.	Serjeants.	
	Bght. forward	..	..	880	80	605	130	735	19	51	
Kent—*cont.* ..	Artillery ..	..	10	480	..	367	8	375	9	29	
			11	80	..	37	13	50	2	3	
			12	80	..	64	3	67	2	5	
			13	240	..	165	7	172	3	15	
				1,760	80	1,238	161	1,399	35	103	1,
		1	Staff	10	..	7	..	7	..	..	
	Total ..	..	..	1,770	80	1,245	161	1,406	35	103	1,
	Rifle	..	1	200	..	160	..	160	6	10	
			3	200	..	88	32	120	4	7	
			4	100	..	62	8	70	3	5	
			5	1,100	..	763	42	805	19	57	
			12	100	..	85	15	100	3	6	
			13	100	..	69	..	69	3	5	
			14	100	..	79	..	79	3	6	
			17	100	30	109	..	109	2	6	
			18	159	..	101	..	101	5	5	
			23	100	..	46	15	61	2	6	
			25	100	30	98	2	100	2	6	
			26	900	..	453	39	492	18	39	
			27	200	..	81	23	104	1	5	
			28	100	..	71	..	71	..	6	
			31	100	..	90	..	90	2	5	
			32	100	..	..	15	15	..	..	
			33	100	..	68	..	68	3	6	
			34	100	..	43	13	56	1	4	
			35	100	..	48	11	59	1	5	
			37	100	..	60	6	66	2	6	
			40	100	..	69	5	74	1	6	
			41	100	..	75	1	76	2	5	
			42	100	..	59	10	69	1	4	
			43	100	..	55	5	60	2	4	
			45	100	..	64	5	69	1	4	
				4,659	60	2,896	247	3,143	87	218	2,
		1	Staff	10	..	11	1	12	1	..	
		2	”	10	..	16	..	16	2	..	
		5	”	7	..	10	..	10	1	..	
	Total ..	..	..	4,686	60	2,933	248	3,181	91	218	2,

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Serjeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
	COUNTY SUMMARY.										
nt—*cont.* ..	Artillery ..	..	..	1,760	80	1,238	161	1,399	35	103	1,113
	Rifle	..	..	4,659	60	2,896	247	3,143	87	218	2,606
				6,419	140	4,134	408	4,542	122	321	3,719
			Staff	37	..	44	1	45	4	..	41
	Total ..	..	..	6,456	140	4,178	409	4,587	126	321	3,760
ncardine ..	Artillery ..	..	1	80	..	..	45	45	..	..	..
			2	80	..	41	9	50	2	5	37
			3	80	..	46	4	50	1	4	37
			4	80	..	36	13	49	1	4	35
	Total ..	..	..	320	..	123	71	194	4	13	109
	Rifle	..	2	100	..	86	..	86	3	6	71
			5	100	..	50	13	63	1	4	37
			6	100	..	90	..	90	3	4	53
			7	100	..	53	7	60	..	3	50
			8	100	..	93	..	93	2	5	65
				500	..	372	20	392	9	22	276
		1	Staff	7	..	8	..	8	1	..	7
	Total ..	..	..	507	..	380	20	400	10	22	283
	COUNTY SUMMARY.										
	Artillery ..	..	..	320	..	123	71	194	4	13	109
	Rifle	..	..	500	..	372	20	392	9	22	276
				820	..	495	91	586	13	35	385
			Staff	7	..	8	..	8	1	..	7
	Total ..	..	..	827	..	503	91	594	14	35	392
inross ..	Rifle	..	1	100	..	72	1	73	3	1	68

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Serjeants.	No. of Volunteers present at Annual In-
Kirkcudbright .	Artillery ..	..	1	80	..	70	9	79	1	4	
	Rifle	..	1	100	..	82	4	86	2	5	
			2	100	..	90	3	93	2	5	
			3	100	..	60	7	67	2	6	
			5	200	..	171	3	174	4	10	1
			6	100	..	81	2	83	3	5	
				600	..	484	19	503	13	31	4
(Galloway ..	Admin. Batt.). .	1	Staff	10	..	10	..	10	1	..	
	Total ..	..	..	610	..	494	19	513	14	31	4
	COUNTY SUMMARY.										
	Artillery ..	..	..	80	..	70	9	79	1	4	
	Rifle	..	..	600	..	484	19	503	13	31	40
				680	..	554	28	582	14	35	46
			Staff	10	..	10	..	10	1	..	
	Total ..	..	..	690	..	564	28	592	15	35	4
Lanark.. ..	Artillery ..	..	1	1,300	..	1,169	19	1,188	37	69	1,00
	Engineer ..	..	1	600	..	416	4	420	10	20	38
	Rifle	..	1	1,600	..	1,033	..	1,033	37	60	91
			3	900	..	719	14	733	22	47	55
			4	900	..	612	9	621	20	48	55
			16	1,000	..	854	40	894	18	47	68
			19	1,200	..	623	11	634	21	54	53
			25	800	..	560	5	565	15	42	43
			29	1,200	..	866	13	879	22	59	66
			31	1,000	..	896	14	910	21	55	75
			37	100	..	96	4	100	2	4	9
			55	100	..	53	14	67	1	5	4
	Carried forward		..	8,800	..	6,312	124	6,436	179	421	5,23

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Serjeants.	No. of Volunteers present at Annual Inspection during year ended 1 Oct. 1875.
	Brought forward		..	8,800	..	6,312	124	6,436	179	421	5,236
anark—*cont.*..	Rifle		62	100	..	75	8	83	2	6	80
		..	73	100	..	70	3	73	3	5	66
			94	100	..	65	..	65	2	3	48
			105	1,200	..	836	29	865	26	56	712
			107	100	..	76	5	81	..	4	77
				10,400	..	7,434	169	7,603	212	495	6,219
		3	Staff	5	..	11	1	12	2	..	10
	Total ..	..	..	10,405	..	7,445	170	7,615	214	495	6,229

COUNTY SUMMARY.

	Artillery ..	..	..	1,360	..	1,169	19	1,188	37	69	1,008
	Engineer ..	..	..	600	..	416	4	420	10	20	386
	Rifle	..	..	10,400	..	7,434	169	7,603	212	495	6,219
				12,360	..	9,019	192	9,211	259	584	7,613
			Staff	5	..	11	1	12	2	..	10
	Total ..	..	..	12,365	..	9,030	193	9,223	261	584	7,623

ancashire ..	Artillery ..	..	1	640	..	532	21	553	7	29	440
			4	640	..	534	17	551	7	29	445
			5	480	..	463	6	469	9	29	379
			8	960	..	871	16	887	13	48	636
			10	80	..	72	..	72	1	5	70
			12	960	50	1,009	1	1,010	15	53	871
			15	720	..	438	32	470	12	38	403
			17	240	..	200	3	203	3	13	173
			18	240	..	151	14	165	6	15	152
			19	720	..	660	20	680	15	40	570
			21	400	..	389	3	392	2	24	318
			23	240	..	137	13	150	2	13	124
			24	160	..	139	3	142	4	9	127
			25	80	..	77	3	80	2	5	72
			26	160	..	112	10	122	..	9	99
	Carried forward	..	..	6,720	50	5,784	162	5,946	98	359	4,879

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.	
									Officers.	Serjeants.
	Bght. forward	..	..	6,720	50	5,784	162	5,946	98	359
Lancashire—*cont.*	Artillery ..	2	Staff	12	..	4	..	4	..	..
		3	,,	12	..	3	..	3	..	..
		4	,,	10	..	5	..	5	2	..
	Total ..	..	..	6,754	50	5,796	162	5,958	100	359
	Engineer ..	..	1	800	..	509	6	515	10	38
			2	600	..	483	89	572	7	23
	Total ..	..	..	1,400	..	992	95	1,087	17	61
	Rifle	..	1	1,000	..	963	9	972	28	43
			2	700	60	760	..	760	11	39
			4	100	30	130	..	130	2	5
			5	1,000	..	793	34	827	31	47
			6	1,200	..	982	11	993	32	42
			7	200	..	196	4	200	5	11
			8	600	..	475	36	511	10	32
			9	600	..	385	19	404	3	28
			10	200	..	178	..	178	3	7
			11	800	..	718	19	737	6	43
			13	200	..	155	15	170	2	10
			15	600	..	561	11	572	17	31
			17	400	..	326	13	339	4	20
			21	300	..	263	7	270	7	7
			23	600	..	363	21	384	12	23
			24	600	..	466	2	468	12	23
			27	800	..	577	19	596	17	39
			29	100	..	60	1	61	2	4
			31	600	..	393	8	401	15	26
			33	1,200	..	1,075	2	1,077	19	48
			37A	259	..	179	6	185	3	18
			37B	200	..	191	9	200	3	8
			37C	100	..	42	18	60	1	5
			40	1,000	60	1,000	5	1,005	19	45
			46	200	..	176	7	183	6	10
			47	900	..	733	8	741	23	30
			48	100	60	131	4	135	3	3
			49	100	..	72	4	76	1	2
			54	200	..	158	6	164	3	9
			55	100	..	99	1	100	..	5
			56	800	..	746	4	750	11	26
	Carried forward		..	15,759	210	13,346	303	13,649	311	689

ounty.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
	Bght. forward	..	..	15,759	210	13,346	303	13,649	311	689	11,386
cashire—*cont.*	Rifle	..	57	100	..	99	..	99	1	5	79
			59	100	..	66	2	68	1	5	49
			60	100	..	97	..	97	3	6	91
			62	200	..	150	..	150	6	11	133
			64	600	60	560	21	581	13	33	467
			65	100	..	20	40	60	1	5	28
			67	100	..	82	14	96	1	3	68
			76	100	..	77	3	80	..	3	68
			80	800	..	409	68	477	8	13	363
			81	100	..	76	1	77	..	4	61
			82	200	..	93	7	100	1	4	80
			84	100	..	100	..	100	1	3	67
			88	100	30	129	1	130	2	6	115
			91	100	..	72	6	78	3	5	68
				18,559	300	15,376	466	15,842	352	795	13,123
		3	Staff	12	..	14	..	14	3	..	13
		4	”	10	..	12	1	13	1	..	10
		5	”	10	..	13	..	13	2	..	13
		6	”	10	..	5	..	5	..	..	5
		7	”	10	..	5	..	5	..	..	4
		8	”	10	..	7	..	7	1	..	7
		9	”	7	..	4	..	4	..	..	4
	Total ..	..	..	18,628	300	15,436	467	15,903	359	795	13,179

COUNTY SUMMARY.

	Artillery ..	..	..	6,720	50	5,784	162	5,946	98	359	4,879
	Engineer ..	..	..	1,400	..	992	95	1,087	17	61	849
	Rifle	..	..	18,559	300	15,376	466	15,842	352	795	13,123
				26,679	350	22,152	723	22,875	467	1,215	18,851
			Staff	103	..	72	1	73	9	..	67
	Total ..	..	..	26,782	350	22,224	724	22,948	476	1,215	18,918

ester ..	Rifle	..	1	100	..	76	6	82	1	1	63
			2	100	..	63	5	68	2	5	67
			3	100	..	49	15	64	2	1	49
			4	200	..	141	9	150	2	7	119
			5	100	..	70	5	75	2	2	59
			6	100	..	49	18	67	..	..	49
	Carried forward ..		..	700	..	448	58	506	9	16	406

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers pre-
									Officers.	Serjeants.	
	Brought forward	..	..	700	..	448	58	506	9	16	
Leicester—*cont.*	Rifle	..	8	100	..	45	17	62	..	1	
			9	100	..	75	6	81	2	4	
			10	100	..	69	7	76	2	1	
				1,000	..	637	88	725	13	22	
		1	Staff	10	..	10	2	12	2	..	
	Total ..	..	..	1,010	..	647	90	737	15	22	
Lincoln ..	Light Horse ..	..	1	60	9	38	7	45	2	2	
	Artillery ..	..	1	160	..	78	8	86	2	6	
			2	240	..	168	6	174	6	14	
			3	129	..	80	4	84	3	4	
				529	..	326	18	344	11	24	
		1	Staff	7	..	5	..	5	2	..	
	Total ..	..	..	536	..	331	18	349	13	24	
	Rifle	..	1	300	..	222	5	227	7	14	
			2	100	..	86	5	91	3	5	
			3	200	..	94	13	107	3	6	
			4	100	..	71	4	75	2	5	
			5	100	..	52	8	60	3	5	
			6	100	..	99	1	100	3	3	
			7	100	..	100	1	101	3	5	
			8	100	..	63	9	72	2	4	
			9	100	..	73	5	78	4	4	
			11	100	..	67	4	71	1	5	
			12	100	..	71	1	72	3	2	
			13	100	..	56	6	62	2	4	
			17	100	..	50	12	62	2	..	
			18	100	..	45	16	61	3	3	
			19	100	..	61	4	65	2	5	
			20	100	..	61	5	66	2	4	
				1,900	..	1,271	99	1,370	45	74	1,
		1	Staff	10	..	17	..	17	3	..	
		2	,,	10	..	11	..	11	1	..	
	Total ..	..	..	1,920	..	1,299	99	1,398	49	74	1,

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
	COUNTY SUMMARY.										
Lincoln—*cont.*	Light Horse ..	..	..	60	9	38	7	45	2	2	40
	Artillery ..	..	..	529	..	326	18	344	11	24	298
	Rifle	..	..	1,900	..	1,271	99	1,370	45	74	1,178
				2,489	9	1,635	124	1,759	58	100	1,516
			Staff	27	..	33	..	33	6	..	29
	Total ..	..	..	2,516	9	1,668	124	1,792	64	100	1,545
Linlithgow ..	Rifle	..	1	100	30	100	..	100	2	6	67
			2	159	60	108	..	108	3	6	81
			3	100	..	71	7	78	1	5	60
			4	100	60	87	2	89	2	7	66
			5	100	..	96	..	96	3	6	65
				559	150	462	9	471	11	30	339
		1	Staff	5	..	8	..	8	2	..	8
	Total ..	..	..	564	150	470	9	479	13	30	347
London ..	Artillery ..	..	1	240	..	100	71	171	4	8	119
	Engineer ..	..	1	600	..	283	156	439	6	28	270
	Rifle	..	1	1,200	..	607	115	722	30	50	577
			2	1,000	..	731	45	776	20	51	483
			3	1,200	..	894	34	928	20	62	733
	Total ..	..	..	3,400	..	2,232	194	2,426	70	163	1,793
	COUNTY SUMMARY.										
	Artillery ..	..	..	240	..	100	71	171	4	8	119
	Engineer ..	..	..	600	..	283	156	439	6	28	270
	Rifle	..	..	3,400	..	2,232	194	2,426	70	163	1,793
	Total ..	..	..	4,240	..	2,615	421	3,036	80	199	2,182

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year
									Officers.	Serjeants.	
Middlesex ..	Artillery ..	..	1	160	..	49	52	101	2	6	6
			2	640	..	595	23	618	19	32	45
			3	960	..	877	52	929	25	48	77
				1,760	..	1,521	127	1,648	46	86	1,29
		1	Staff	12	..	2	..	2	1	..	
	Total ..	..	..	1,772	..	1,523	127	1,650	47	86	1,29
	Engineer ..	..	1	800	..	429	48	477	16	30	40
	Rifle	..	1	400	..	155	85	240	17	11	16
			2	1,400	..	689	164	853	37	60	65
			3	159	..	55	25	80	3	5	5
			4	700	..	552	4	556	7	35	33
			9	600	..	363	36	399	13	20	33
			11	600	..	473	27	500	15	30	43
			12	100	..	63	5	68	2	3	6
			13	100	60	43	19	62	3	5	5
			14	100	..	58	22	80	1	4	5
			15	800	..	399	86	485	17	27	36
			16	400	..	274	..	274	5	11	25
			18	300	..	183	35	218	7	15	18
			19	1,000	..	741	58	799	23	50	71
			20	1,000	..	606	33	639	18	39	59
			21	800	..	371	123	494	25	30	39
			22	1,200	..	640	82	722	32	46	63
			23	800	..	255	211	466	19	24	30
			24	200	..	64	7	71	1	4	6
			26	1,400	..	675	119	794	17	38	65
			28	1,200	..	872	26	898	23	53	82
			29	800	..	516	40	556	14	35	45
			30	100	..	76	..	76	2	3	6
			33	100	..	78	21	99	..	5	7
			36	800	..	733	1	734	27	42	64
			37	800	..	731	..	731	24	43	62
			38	500	..	350	54	404	14	26	32
			39	800	..	493	24	517	7	37	43
			40	800	..	382	93	475	7	27	35
			41	200	..	109	11	120	2	10	10
			43	100	..	63	3	66	2	4	6
			44	100	..	46	31	77	2	3	4
			46	600	..	418	21	439	7	23	36
			49	1,000	..	588	10	598	17	49	53
			50	100	..	..	..	..	..	..	..
				20,059	60	12,114	1,476	13,590	410	817	11,2
		2	Staff	12	..	10	..	10	1	..	
		7	,,	10	..	11	..	11	2	..	
	Total ..	..	..	20,081	60	12,135	1,476	13,611	413	817	11,2

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
	COUNTY SUMMARY.										
Middlesex--*cont.*	Artillery ..	..	..	1,760	..	1,521	127	1,648	46	86	1,293
	Engineer ..	..	..	800	..	429	48	477	16	30	401
	Rifle	..	..	20,059	60	12,114	1,476	13,590	410	817	11,218
				22,619	60	14,064	1,651	15,715	472	933	12,912
			Staff	34	..	23	..	23	4	..	22
	Total ..	..	..	22,653	60	14,087	1,651	15,738	476	933	12,934
Midlothian ..	Artillery ..	..	1	640	50	485	76	561	22	29	450
	Rifle	..	1	1,100	..	886	62	948	28	55	698
			2	400	..	312	88	400	9	21	259
			3	200	..	145	5	150	5	10	134
			5	100	..	100	..	100	2	6	76
				1,800	..	1,443	155	1,598	44	92	1,167
		1	Staff	10	..	10	..	10	3	..	9
	Total ..	..	..	1,810	..	1,453	155	1,608	47	92	1,176
	COUNTY SUMMARY.										
	Artillery ..	..	..	640	50	485	76	561	22	29	450
	Rifle	..	..	1,800	..	1,443	155	1,598	44	92	1,167
				2,440	50	1,928	231	2,159	66	121	1,617
			Staff	10	..	10	..	10	3	..	9
	Total ..	..	..	2,450	50	1,938	231	2,169	69	121	1,626
Monmouthshire	Artillery ..	..	1	560	..	535	16	551	8	13	385
		1	Staff	12	..	7	..	7	1	..	6
				572	..	542	16	558	9	31	391
	Rifle	..	1	00	..	77	4	81	2	3	69
			2	600	..	602	1	603	9	33	410
			3	400	..	247	40	287	3	13	215
			4	100	..	84	..	84	3	3	73
			5	159	..	84	6	90	1	6	92
			6	100	..	53	10	63	3	5	48
			7	300	..	187	10	197	7	8	154
			8	100	..	57	4	61	1	6	50
			9	100	..	79	2	81	1	6	58
	Carried forward	..	..	1,959	..	1,470	77	1,547	30	83	1,169

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year
									Officers.	Serjeants.	
	Brought forward	..	..	1,959	..	1,470	77	1,547	30	83	1,169
Monmouthshire *cont.*		1	Staff	7	..	4	1	5	1	..	3
		2	"	10	..	10	..	10	3	..	10
	Total ..	..	..	1,976	..	1,484	78	1,562	34	83	1,182
	COUNTY SUMMARY.										
	Artillery ..	..	..	560	..	535	16	551	8	31	385
	Rifle	..	..	1,959	..	1,470	77	1,547	30	83	1,169
				2,519	..	2,005	93	2,098	38	114	1,554
			Staff	29	..	21	1	22	5	..	19
	Total ..	..	..	2,548	..	2,026	94	2,120	43	114	1,573
Montgomery ..	Rifle	..	2	100	..	35	6	41	..	2	35
			4	59	..	..	..	..	..	..	..
	Total ..	..	..	159	..	35	6	41	..	2	35
Nairn	Artillery ..	..	1	160	..	110	11	121	5	10	99
Newcastle-on-Tyne	Artillery ..	..	1	640	..	545	4	549	23	36	445
	Engineer ..	..	1	400	..	309	46	355	5	20	265
	Rifle	..	1	800	..	522	5	527	14	31	474
	COUNTY SUMMARY.										
	Artillery ..	..	..	640	..	545	4	549	23	36	445
	Engineer ..	..	..	400	..	309	46	355	5	20	265
	Rifle	..	..	800	..	522	5	527	14	31	474
	Total ..	..	..	1,840	..	1,376	55	1,431	42	87	1,184

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
Norfolk ..	Artillery ..	..	1	80	..	80	..	80	1	5	80
			2	160	..	143	1	144	5	9	132
				240	..	223	1	224	6	14	212
		1	Staff	10	..	5	..	5	1	..	2
	Tot ..	..	..	250	..	228	1	229	7	14	214
	Rifle	..	1	600	..	440	23	463	16	31	370
			2	500	..	436	14	450	13	26	368
			3	1,059	..	574	23	597	26	49	518
			4	600	..	318	70	388	15	25	311
	Total ..	..	..	2,759	..	1,768	130	1,898	70	131	1,567
	COUNTY SUMMARY.										
	Artillery ..	..	..	240	..	223	1	224	6	14	212
	Rifle	..	..	2,759	..	1,768	130	1,898	70	131	1,567
				2,999	..	1,991	131	2,122	76	145	1,779
			Staff	10	..	5	..	5	1	..	2
	Total ..	..	..	3,009	..	1,996	131	2,127	77	145	1,781
Northampton ..	Engineer ..	..	1	100	..	68	4	72	3	4	62
	Rifle	..	1	100	..	34	18	52	1	2	39
			2	100	..	75	..	75	3	4	58
			3	500	..	333	7	340	4	24	302
			6	200	..	142	6	148	4	8	130
			7	100	..	89	3	92	3	5	78
			8	100	..	53	8	61	1	2	55
			9	100	..	82	3	85	1	4	77
				1,200	..	808	45	853	17	49	739
		1	Staff	12	..	12	..	12	2	..	10
	Total ..	..	..	1,212	..	820	45	865	19	49	749

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year
									Officers.	Serjeants.	
	COUNTY SUMMARY.										
Northampton—*cont.*	Engineer	..	..	100	..	68	4	72	3	4	62
	Rifle	..	..	1,200	..	808	45	853	17	49	739
				1,300	..	876	49	925	20	53	801
			Staff	12		12	..	12	2	..	10
	Total ..	..	..	1,312	..	888	49	937	22	53	811
Northumberland	Artillery ..	..	1	240	..	150	10	160	7	12	151
			2	640	..	379	28	407	12	22	307
			3	480	..	409	32	441	12	25	338
				1,360	..	938	70	1,008	31	59	796
		1	Staff	10	..	1	1	2	..	..	1
	Total ..	..	..	1,370	..	939	71	1,010	31	59	797
	Rifle	..	2	159	..	96	28	124	4	7	84
			3	100	..	86	7	93	2	6	74
			4	100	..	67	2	69	2	6	46
			5	100	..	66	4	70	1	4	50
			6	100	..	63	6	69	2	5	57
			7	100	..	74	3	77	2	6	71
			8	600	..	174	196	370	6	24	266
			10	100	..	50	11	61	1	4	47
			11	100	..	87	5	92	1	6	79
				1,459	..	763	262	1,025	21	68	774
		1	Staff	10	..	15	..	15	2	..	13
	Total ..	..	..	1,469	..	778	262	1,040	23	68	787
	COUNTY SUMMARY.										
	Artillery ..	..	..	1,360	..	938	70	1,008	31	59	796
	Rifle	..	..	1,459	..	763	262	1,025	21	68	774
				2,819	..	1,701	332	2,033	52	127	1,570
			Staff	20	..	16	1	17	2	..	14
	Total ..	..	..	2,839	..	1,717	333	2,050	54	127	1,584

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
Nottingham ..	Rifle	..	1	1,000	100	1,000	..	1,000	19	50	738
			2	100	..	59	6	65	1	5	50
			3	200	..	128	21	149	3	8	127
			4	100	..	89	1	90	..	2	64
			5	100	..	49	12	61	1	4	50
			6	100	..	50	10	60	1	2	50
			7	100	..	62	3	65	1	5	60
			8	100	..	65	4	69	1	3	53
				1,800	100	1,502	57	1,559	27	79	1,192
		1	Staff	10	..	11	1	12	2	..	12
	Total ..	..	..	1,810	100	1,513	58	1,571	29	79	1,204
Orkney ..	Artillery ..	..	1	80	..	64	4	68	1	4	47
			2	80	..	60	2	62	1	5	52
			3	80	..	54	8	62	2	2	44
			4	80	..	47	9	56	1	3	38
			5	80	..	53	1	54	3	1	44
			6	80	..	49	2	51	1	..	41
			7	49	..	23	8	31	..	1	21
			8	80	..	34	21	55	1	2	36
			9	80	..	48	21	69	..	..	46
				689	..	432	76	508	10	18	369
		1	Staff	7	..	3	..	3	1	..	3
	Total ..	..	..	696	..	435	76	511	11	18	372
	Rifle	..	1	100	..	78	5	83	3	5	46

COUNTY SUMMARY.

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Officers.	Serjeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
	Artillery ..	..	..	689	..	432	76	508	10	18	369
	Rifle	..	..	100	..	78	5	83	3	5	46
				789	..	510	81	591	13	23	415
			Staff	7	..	3	..	3	1	..	3
	Total ..	..	..	796	..	513	81	594	14	23	418
Oxfordshire ..	Rifle	..	1	600	..	138	79	217	9	7	151
			2	600	..	334	39	373	11	22	255
	Total ..	..	..	1,200	..	472	118	590	20	29	406

County.	Arm. ..	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
Peebles ..	Rifle	..	1	200	..	98	3	101	1	6	93
			3	100	..	97	..	97	1	6	84
	Total ..	..	..	300	..	195	3	198	2	12	177
Pembroke ..	Artillery ..	..	2	160	..	80	12	92	1	4	88
	Rifle	..	1	100	..	92	1	93	1	3	91
			3	100	..	57	5	62	2	3	57
				200	..	149	6	155	3	6	148
		1	Staff	5	..	9	1	10	..	..	8
	Total ..	..	..	205	..	158	7	165	3	6	156
	COUNTY SUMMARY.										
	Artillery ..	..	..	160	..	80	12	92	1	4	88
	Rifle	..	..	200	..	149	6	155	3	6	148
				360	..	229	18	247	4	10	236
			Staff	5	..	9	1	10	..	..	8
	Total ..	..	..	365	..	238	19	257	4	10	244
Perthshire ..	Rifle	..	1	200	..	125	15	140	2	10	135
			3	100	..	57	10	67	3	4	50
			4	100	..	73	3	76	2	4	66
			5	100	..	98	2	100	3	5	85
			6	100	..	74	3	77	3	5	77
			7	100	..	88	1	89	3	4	73
			8	100	..	70	6	76	1	5	75
			9	100	..	86	1	87	2	5	78
			11	100	..	66	6	72	2	5	63
			13	100	..	62	6	68	2	5	56
			14	100	..	60	6	66	2	3	48
			15	100	..	75	1	76	2	6	75
			18	100	..	71	4	75	2	5	74
			19	59	..	40	8	48	1	2	47
			20	100	..	74	..	74	2	5	69
			21	100	..	..	69	69	..	..	..
				1,659	..	1,119	141	1,260	32	73	1,071
		1	Staff	10	..	9	1	10	3	..	9
		2	„	10	..	13	..	13	1	..	13
	Total ..	..	..	1,679	..	1,141	142	1,283	36	73	1,093

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Serjeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
adnor ..	Rifle	..	1	100	..	52	9	61	..	2	40
			2	100	..	52	17	69	..	3	43
	Total ..	..	..	200	..	104	26	130	..	5	83
enfrewshire ..	Artillery ..	..	1	320	..	199	12	211	6	10	153
		1	Staff	10	..	4	..	4	1	..	4
	Total ..	..	..	330	..	203	12	215	7	10	157
	Rifle	..	1	400	..	395	3	398	13	17	347
			3	100	30	67	2	69	3	5	49
			4	100	..	75	3	78	1	5	45
			5	100	..	97	3	100	2	6	59
			6	100	30	88	2	90	2	5	63
			7	100	20	78	..	78	2	5	51
			8	100	..	78	..	78	3	2	54
			9	100	30	122	4	126	2	5	66
			10	200	..	182	3	185	5	11	147
			14	100	30	91	2	93	3	6	82
			15	100	..	96	3	99	3	5	74
			16	100	..	74	..	74	1	4	56
			17	100	..	67	5	72	2	..	54
			19	100	..	75	..	75	2	5	63
			20	100	..	90	3	93	3	5	66
			21	100	30	99	..	99	2	6	73
			22	100	..	83	..	83	1	6	67
			23	100	..	74	7	81	2	2	65
			24	100	30	93	4	97	3	4	68
			25	100	..	56	10	66	..	4	42
				2,400	200	2,080	54	2,134	55	108	1,591
		1	Staff	10	..	9	..	9	..	..	9
		2	"	10	..	13	1	14	4	..	10
		3	"	10	..	12	1	13	3	..	12
	Total ..	..	..	2,430	200	2,114	56	2,170	62	108	1,622

COUNTY SUMMARY.

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Officers.	Serjeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
	Artillery ..	..	..	320	..	199	12	211	6	10	153
	Rifle	..	..	2,400	200	2,080	54	2,134	55	108	1,591
				2,720	200	2,279	66	2,345	61	118	1,744
			Staff	40	..	38	2	40	8	..	35
	Total ..	..	..	2,760	200	2,317	68	2,385	69	118	1,779

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual In-
									Officers.	Serjeants.	
Ross	Artillery ..	..	1	80	30	111	1	112	3	5	82
			2	80	..	40	12	52	2	1	39
	Total ..	..	..	160	30	151	13	164	5	6	121
	Rifle	..	1	100	..	100	..	100	2	7	83
			2	100	..	90	..	90	3	6	68
			3	100	..	81	2	83	3	6	67
			4	100	..	80	..	80	3	5	61
			5	100	..	51	17	68	2	5	54
			6	100	..	82	..	82	3	5	70
			7	100	..	79	..	79	1	5	58
			8	100	..	67	1	68	3	5	47
			9	100	..	74	1	75	2	4	59
				900	..	704	21	725	22	48	567
		1	Staff	10	..	16	..	16	6	..	14
	Total ..	..	..	910	..	720	21	741	28	48	581
	COUNTY SUMMARY.										
	Artillery ..	..	..	160	30	151	13	164	5	6	121
	Rifle	..	..	900	..	704	21	725	22	48	567
				1,060	30	855	34	889	27	54	688
			Staff	10	..	16	..	16	6	..	14
	Total ..	..	..	1,070	30	871	34	905	33	54	70
Roxburgh ..	Mounted Rifle	..	1	60	..	47	2	49	4	4	4
	Rifle	..	1	100	30	80	..	80	3	6	7
			2	100	19	89	2	91	3	6	8
			3	100	..	76	..	76	3	6	6
			4	200	..	144	8	152	3	5	13
				500	49	389	10	399	12	23	36
		1	Staff	7	..	11	..	11	4	..	1
	Total ..	..	..	507	49	400	10	410	16	23	37
	COUNTY SUMMARY.										
	Mounted Rifle	..	..	60	..	47	2	49	4	4	4
	Rifle	..	..	500	49	389	10	399	12	23	36
				560	49	436	12	448	16	27	40
			Staff	7	..	11	..	11	4	..	1
	Total ..	..	..	567	49	447	12	459	20	27	41

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Serjeants	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
elkirk.. ..	Rifle	..	1	200	..	197	1	198	5	11	174
			2	100	..	69	2	71	2	6	60
	Total ..	..	..	300	..	266	3	269	7	17	234
ropshire ..	Artillery ..	..	1	320	..	213	24	237	3	20	198
		1	Staff	10	..	2	..	2	..	..	2
	Total ..	..	..	330	..	215	24	239	3	20	200
	Rifle	..	1	100	..	78	3	81	1	5	64
			2	100	..	52	1	53	1	3	45
			3	100	..	72	11	83	2	4	72
			4	100	..	80	2	82	2	6	75
			5	100	..	57	7	64	1	4	49
			6	100	30	83	..	83	2	5	83
			7	100	..	79	19	98	..	5	79
			8	100	..	46	4	50	1	5	38
			10	100	..	81	1	82	2	4	74
			11	100	..	61	3	64	2	4	49
			12	100	..	57	1	58	2	5	47
			13	100	..	52	2	54	2	5	49
			14	100	..	63	5	68	2	5	53
			15	100	..	88	2	90	2	5	80
			17	100	30	102	2	104	1	5	84
			18	100	..	57	4	61	2	3	54
				1,600	60	1,108	67	1,175	25	73	995
		1	Staff	10	..	12	2	14	..	..	12
		2	,,	10	..	11	1	12	..	..	11
	Total ..	..	..	1,620	60	1,131	70	1,201	25	73	1,018

COUNTY SUMMARY.

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Officers	Serjeants	No. of Volunteers present at Annual Inspection
	Artillery ..	..	..	320	..	213	24	237	3	20	198
	Rifle	..	..	1,600	60	1,108	67	1,175	25	73	995
				1,920	60	1,321	91	1,412	28	93	1,193
			Staff	30	..	25	3	28	..	..	25
	Total ..	..	..	1,950	60	1,346	94	1,440	28	93	1,218
omersetshire..	Artillery ..	..	1	80	..	61	2	63	..	5	59
	Engineer ..	..	1	200	60	208	24	232	4	12	183

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers pre-sent at Annual In-spection during year
									Officers.	Serjeants.	
Somersetshire—*cont.*	Rifle	..	1	100	..	100	1	101	3	6	8
			2	100	..	100	..	100	2	6	9
			3	100	..	52	20	72	1	3	5
			4	100	..	39	21	60	..	1	4
			5	159	..	159	1	160	3	9	14
			6	100	..	45	17	62	2	2	4
			7	100	..	79	..	79	2	5	7
			8	100	..	60	4	64	2	3	5
			9	100	..	56	10	66	2	5	4
			10	100	..	40	20	60	2	4	4
			12	100	..	66	3	69	1	5	5
			13	200	..	118	11	129	2	5	11
			14	100	..	74	..	74	1	2	6
			15	100	..	50	13	63	2	1	5
			16	100	..	92	..	92	2	6	8
			17	100	..	92	..	92	2	6	8
			18	100	..	100	1	101	2	5	8
			19	100	..	61	4	65	2	3	5
			20	100	..	87	..	87	3	5	7
			21	100	..	48	14	62	1	2	4
			22	100	..	47	7	54	..	1	4
			23	100	..	45	17	62	2	4	4
			25	100	..	45	18	63	2	..	4
			26	200	..	166	1	167	4	9	14
			27	100	..	48	23	71	1	..	4
				2,759	..	1,869	206	2,075	46	98	1,70
		1	Staff	7	..	10	..	10	1	..	1
		2	,,	10	..	14	..	14	2	..	1
		3	,,	10	..	15	..	15	3	..	1
	Total ..	..	..	2,786	..	1,908	206	2,114	52	98	1,74
	COUNTY SUMMARY.										
	Artillery ..	..	..	80	..	61	2	63	..	5	5
	Engineer ..	..	..	200	60	208	24	232	4	12	18
	Rifle	..	..	2,759	..	1,869	206	2,075	46	98	1,70
				3,039	60	2,138	232	2,370	50	115	1,94
			Staff	27	..	39	..	39	6	..	3
	Total ...	..	..	3,066	60	2,177	232	2,409	56	115	1,98
Staffordshire ..	Artillery ..	..	1	240	..	240	4	244	..	15	23
	Rifle	..	1	159	..	97	..	97	3	6	9
			2	100	..	90	10	100	2	6	7
			3	159	..	74	17	91	2	4	6
			4	200	..	174	5	179	5	10	12
			5	400	..	349	..	349	8	19	24
	Carried forward	..	..	1,018	..	784	32	816	20	45	60

County.	Arm.	No. of Administrative Regiment.	County No. of Corps	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
	Brought forward	..	..	1,018	..	784	32	816	20	45	600
taffordshire—*cont.*		..	6	100	..	81	7	88	2	5	78
			7	100	..	67	..	67	3	3	55
			8	100	..	71	..	71	3	4	59
			9	100	..	86	5	91	2	6	82
			10	100	30	94	8	102	3	6	100
			11	100	20	111	3	114	1	5	68
			12	100	30	123	2	125	1	6	71
			13	100	20	77	3	80	3	6	76
			14	100	..	82	..	82	2	5	62
			15	100	..	95	..	95	3	6	94
			16	200	..	148	11	159	3	5	139
			18	100	..	88	..	88	3	5	80
			19	100	..	85	7	92	3	6	67
			20	159	..	103	..	103	2	6	99
			21	100	..	62	1	63	2	3	56
			22	100	..	77	1	78	..	5	63
			23	159	..	121	1	122	1	8	80
			24	100	..	79	3	82	3	5	67
			25	200	..	131	9	140	2	9	115
			27	200	..	109	10	119	4	9	54
			28	100	..	80	2	82	1	6	74
			29	100	30	121	..	121	1	3	74
			30	100	..	90	..	90	3	6	74
			31	100	..	80	2	82	3	5	77
			32	200	..	114	..	114	2	6	84
			33	100	..	70	1	71	2	5	45
			34	100	..	76	1	77	3	5	65
			36	159	..	100	..	100	2	6	96
			39	100	..	71	..	71	1	3	48
			40	100	..	86	6	92	1	6	83
				4,595	130	3,562	115	3,677	85	209	2,885
		1	Staff	12	..	14	1	15	3	..	14
		2	,,	7	..	9	..	9	2	..	6
		3	,,	10	..	12	1	13	2	..	11
		4	,,	10	..	12	1	13	3	..	12
		5	,,	7	..	9	..	9	2	..	8
	Total ..	..	..	4,641	130	3,618	118	3,736	97	209	2,936

COUNTY SUMMARY.

County.	Arm.	No. of Administrative Regiment.	County No. of Corps	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Officers.	Serjeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
	Artillery ..	..	..	240	..	240	4	244	..	15	235
	Rifle ,, ..	..	..	4,595	130	3,562	115	3,677	85	209	2,885
				4,835	130	3,802	119	3,921	85	224	3,120
			Staff	46	..	56	3	59	12	..	51
	Total ..	..	..	4,881	130	3,858	122	3,980	97	224	3,171

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers pre-
									Officers.	Serjeants.	
Stirlingshire ..	Artillery ..	..	1	80	..	68	4	72	2	4	
			2	80	50	80	..	80	3	5	
	Total ..	..	..	160	50	148	4	152	5	9	
	Rifle	..	1	100	..	80	..	80	3	5	
			2	100	30	83	3	86	2	4	
			3	100	30	117	2	119	3	4	
			4	100	..	71	..	71	3	1	
			5	100	..	51	7	58	2	5	
			6	100	..	66	7	73	1	2	
			7	100	..	82	..	82	3	4	
			9	100	..	72	..	72	3	5	
			11	100	..	90		91	2	5	
			12	100	..	81	6	87	2	5	
			13	100	..	88	3	91	1	5	
			14	100	..	100	..	100	3	5	
				1,200	60	981	29	1,010	28	50	
		1	Staff	12	..	16	..	16	5	..	
	Total ..	..	..	1,212	60	997	29	1,026	33	50	
	COUNTY SUMMARY.										
	Artillery ..	..	..	160	50	148	4	152	5	9	
	Rifle	..	..	1,200	60	981	29	1,010	28	50	
				1,360	110	1,129	33	1,162	33	59	
			Staff	12	..	16	..	16	5	..	
	Total ..	..	..	1,372	110	1,145	33	1,178	38	59	
Suffolk.. ..	Artillery ..	..	1	80	..	76	..	76	2	5	
			3	49	..	23	7	30	1	3	
			4	80	..	68	5	73	..	5	
	Total ..	..	..	209	..	167	12	179	3	13	
	Rifle	..	1	300	..	257	9	266	5	15	
			2	100	..	64	4	68	2	6	
			3	100	..	51	11	62	3	6	
			4	200	..	79	4	83	3	5	
			6	100	60	81	4	85	2	5	
			7	100	..	81	14	95	2	6	
	Carried forward ..		..	900	60	613	46	659	17	43	

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtanied Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
	Bght. forward	..	..	900	60	613	46	659	17	43	500
olk—*cont.*	Rifle	..	8	100	..	90	8	98	2	6	71
			9	100	..	64	..	64	2	6	65
			10	200	..	117	11	128	3	9	120
			11	100	..	59	9	68	4	5	51
			13	200	..	107	15	122	4	5	91
			14	100	..	92	..	92	2	5	76
			16	100	..	41	21	62	3	4	45
			17	200	..	97	24	121	3	8	96
			20	100	..	47	13	60	3	4	42
				2,100	60	1,327	147	1,474	43	95	1,157
		1	Staff	10	..	10	1	11	3	..	9
		2	,,	7	..	8	2	10	3	..	7
		3	,,	7	..	10	1	11	1	..	10
	Total ..	..	..	2,124	60	1,355	151	1,506	50	95	1,183

COUNTY SUMMARY.

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Officers.	Serjeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
	Artillery ..	..	..	209	..	167	12	179	3	13	162
	Rifle	..	..	2,100	60	1,327	147	1,474	43	95	1,157
				2,309	60	1,494	159	1,653	46	108	1,319
			Staff	24	..	28	4	32	7	..	26
	Total ..	..	..	2,333	60	1,522	13	1,685	53	108	1,345

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Officers.	Serjeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
rey.. ..	Artillery ..	..	1	640	..	318	142	460	9	13	343
	Rifle	..	1	600	..	301	59	360	17	28	252
			2	600	..	393	66	459	11	24	400
			4	259	..	159	5	164	5	8	144
			5	100	..	89	2	91	3	3	80
			6	100	..	66	10	76	3	4	62
			7	600	..	347	16	363	2	23	248
			8	100	..	39	14	53	2	1	48
			9	200	60	170	32	202	5	11	164
			10	200	60	182	18	200	3	14	131
			11	159	..	117	8	125	4	7	105
			12	400	..	255	10	265	7	14	236
			13	100	..	71	8	79	2	3	72
			14	100	..	..	..	..	..	..	..
			15	100	..	64	10	74	2	3	61
			17	100	..	54	..	54	1	3	47
			18	100	..	55	6	61	..	2	54
			19	600	..	444	44	488	11	36	401
	Carried forward ..		..	4,418	120	2,806	308	3,114	78	184	2,505

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual In-
									Officers.	Serjeants.	
	Bght. forward	..	..	4,418	120	2,806	308	3,114	78	184	2,5
Surrey—*cont.*	Rifle	..	23	600	..	292	69	361	6	21	2
			24	100	..	81	9	90	1	4	
			25	100	..	50	6	56	1	4	
			26	400	..	322	21	343	..	12	2
				5,618	120	3,551	413	3,964	86	225	3,1
		1	Staff	5	..	7	..	7	1	..	
		2	,,	10	..	7	..	7	1	..	
		3	,,	7	..	7	..	7	2	..	
		4	,,	10	..	5	..	5	..	..	
	Total ..	..	..	5,650	120	3,577	413	3,990	90	225	3,
	COUNTY SUMMARY.										
	Artillery ..	..	..	640	..	318	142	460	9	13	3
	Rifle	..	..	5,618	120	3,551	413	3,964	86	225	3,1
				6,258	120	3,869	555	4,424	95	238	3,5
			Staff	32	..	26	..	26	4	..	
	Total ..	..	..	6,290	120	3,895	555	4,450	99	238	3,5
Sussex	Artillery ..	..	1	640	..	481	15	496	10	28	4
			2	109	..	80	6	86	1	6	
			3	160	..	91	17	108	3	5	
			4	80	..	62	4	66	..	4	
				989	..	714	42	756	14	43	6
		1	Staff	10	..	6	..	6	..	..	
	Total ..	..	..	999	..	720	42	762	14	43	6
	Rifle	..	1	600	..	443	14	457	17	24	
			2	200	..	104	16	120	1	5	
			4	100	..	91	3	94	1	6	
			5	100	..	92	..	92	3	6	
			6	100	..	66	..	66	3	4	
			7	100	..	69	..	69	3	4	
			8	100	..	58	2	60	2	1	
			9	100	..	61	8	69	3	4	
			10	100	..	62	1	63	2	4	
			11	100	..	62	8	70	2	5	
			12	100	..	58	3	61	2	4	
			13	100	..	50	10	60	3	4	
	Carried forward	..	..	1,800	..	1,216	65	1,281	42	71	1,1

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
	Brought forward		..	1,800	..	1,216	65	1,281	42	71	1,124
ssex—*cont* ..	Rifle	..	16	100	..	49	2	51	2	4	50
			17	100	..	78	..	78	3	6	68
			18	100	..	48	10	58	1	3	48
			20	100	..	..	..	..	..	..	..
				2,200	..	1,391	77	1,468	48	84	1,290
		1	Staff	12	..	20	..	20	5	..	19
	Total ..	..	..	2,212	..	1,411	77	1,488	53	84	1,309

COUNTY SUMMARY.

	Artillery ..	..	..	989	..	714	42	756	14	43	651
	Rifle	..	..	2,200	..	1,391	77	1,468	48	84	1,290
				3,189	..	2,105	119	2,224	62	127	1,941
			Staff	22	..	26	..	26	5	..	25
	Total ..	..	..	3,211	..	2,131	119	2,250	67	127	1,966

utherland ..	Artillery ..	..	1	80	..	50	1	51	1	..	34
			2	80	..	50	1	51	1	..	36
	Total ..	..	..	160	..	100	2	102	2	..	70
	Rifle	..	1	100	..	84	..	84	2	5	65
			2	100	..	83	10	93	1	4	68
			3	100	..	99	..	99	1	5	91
			4	100	..	81	3	84	..	4	60
			5	100	..	75	6	81	1	1	52
				500	..	422	19	441	5	19	336
		1	Staff	10	..	14	..	14	3	..	13
	Total ..	..	..	510	..	436	19	455	8	19	349

COUNTY SUMMARY.

	Artillery ..	..	..	160	..	100	2	102	2	..	70
	Rifle	..	..	500	..	422	19	441	5	19	336
				660	..	522	21	543	7	19	406
			Staff	10	..	14	..	14	3	..	13
	Total ..	..	..	670	..	536	21	557	10	19	419

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year
									Officers.	Serjeants.	
Tower Hamlets	Engineer ..	..	2	600	..	368	6	374	11	26	31
	Rifle	..	1	1,200	..	580	184	764	13	56	56
			3	400	..	252	5	257	6	17	24
			7	400	..	298	3	301	4	20	25
			10	300	..	244	11	255	3	11	21
				2,300	..	1,374	203	1,577	26	104	1,28
		1	Staff	10	..	6	..	6	2	..	
	Total ..	..	..	2,310	..	1,380	203	1,583	28	104	1,29
	COUNTY SUMMARY.										
	Engineer ..	..	..	600	..	368	6	374	11	26	31
	Rifle	..	..	2,300	..	1,374	203	1,577	26	104	1,28
				2,900	..	1,742	209	1,951	37	130	1,59
			Staff	10	..	6	..	6	2	..	
	Total ..	..	..	2,910	..	1,748	209	1,957	39	130	1,60
Warwickshire ..	Rifle	..	1	1,200	..	967	34	1,001	25	60	74
			2	300	..	256	2	258	6	14	24
			3	200	..	135	..	135	3	7	11
			4	100	..	71	..	71	2	5	6
			5	100	..	62	1	63	1	5	5
			8	100	..	77	..	77	1	5	6
			9	100	10	100	..	100	2	6	9
			10	200	..	144	..	144	5	9	13
				2,300	10	1,812	37	1,849	45	111	1,53
		1	Staff	10	..	13	..	13	..	..	1
	Total ..	..	..	2,310	10	1,825	37	1,862	45	111	1,54
Westmoreland .	Rifle	..	1	100	..	84	1	85	..	3	6
			3	200	..	204	8	212	7	15	16
			4	100	..	76	3	79	3	5	6
			5	100	..	61	6	67	2	5	5
			6	100	..	71	1	72	1	4	5
				700	..	496	19	515	13	32	40
		1	Staff	7	..	7	..	7	1	..	
	Total ..	..	..	707	..	503	19	522	14	32	41

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
igtown ..	Artillery ..	..	1	80	10	53	4	57	..	4	47
			2	80	..	52	11	63	2	4	45
			3	80	..	58	..	58	3	4	55
	Total ..	..	..	240	10	163	15	178	5	12	147
	Rifle	..	2	100	..	72	4	76	2	4	65
			3	100	..	70	8	78	2	5	68
	Total ..	..	...	200	..	142	12	154	4	9	133

COUNTY SUMMARY.

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Officers.	Serjeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
	Artillery ..	..	..	240	10	163	15	178	5	12	147
	Rifle	..	..	200	..	142	12	154	4	9	133
	Total ..	..	..	440	10	305	27	332	9	21	280

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Officers.	Serjeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
iltshire ..	Rifle	..	1	200	..	162	11	173	3	8	126
			2	200	..	168	19	187	4	8	143
			3	100	..	56	13	69	2	5	43
			4	200	..	90	5	95	3	8	92
			5	100	..	73	3	76	2	5	71
			7	100	..	50	7	57	..	3	49
			8	100	..	..	..	..	..	..	..
			9	100	..	59	6	65	2	4	52
			10	159	..	100	15	115	3	6	100
			11	200	..	142	2	144	2	10	129
			12	100	..	51	7	58	1	3	53
			13	100	..	60	5	65	1	3	61
			14	100	..	77	6	83	2	4	67
			15	100	..	44	16	60	2	5	46
			16	100	..	62	3	65	2	3	56
			17	100	..	61	11	72	2	5	56
			18	100	..	51	12	63	..	4	49
				2,159	..	1,306	141	1,447	31	84	1,193
		1	Staff	10	..	11	1	12	2	..	11
		2	"	12	..	16	1	17	3	..	16
	Total ..	.	..	2,181	..	1,333	143	1,476	36	84	1,220

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year
									Officers.	Serjeants.	
Worcester ..	Artillery ..	..	1	320	..	229	22	251	6	17	20
	Rifle	..	1	100	..	69	..	69	2	5	5
			2	100	..	68	1	69	3	5	6
			3	100	..	56	4	60	2	6	4
			4	100	..	63	..	63	3	6	4
			5	100	..	57	5	62	1	5	4
			6	100	..	50	10	60	2	2	3
			7	100	..	96	2	98	2	6	7
			8	100	..	66	..	66	3	5	5
			9	159	..	114	..	114	2	7	9
			10	100	..	74	..	74	3	4	7
			11	100	..	73	5	78	3	3	5
			12	100	..	59	8	67	2	4	6
			13	100	60	100	..	100	1	4	9
			14	100	..	100	..	100	1	5	9
			16	100	..	61	6	67	2	4	5
			17	100	..	100	..	100	3	5	9
			18	100	..	63	..	63	1	..	6
			19	59	..	34	19	53	1	2	3
			20	100	..	74	..	74	3	6	6
			21	100	..	100	..	100	1	6	9
				2,018	60	1,477	60	1,537	41	90	1,29
		1	Staff	10	..	15	..	15	2	..	1
		2	,,	10	..	15	..	15	3	..	1
	Total ..	..	..	2,038	60	1,507	60	1,567	46	90	1,32

COUNTY SUMMARY.

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Officers.	Serjeants.	No. of Volunteers present at Annual Inspection during year
	Artillery ..	..	..	320	..	229	22	251	6	17	20
	Rifle	..	..	2,018	60	1,477	60	1,537	41	90	1,29
				2,338	60	1,706	82	1,788	47	107	1,50
			Staff	20	..	30	..	30	5	..	2
	Total ..	..	..	2,358	60	1,736	82	1,818	52	107	1,52

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Officers.	Serjeants.	No. of Volunteers present at Annual Inspection during year
York, East Riding.	Artillery ..	..	2	80	..	51	3	54	2	4	4
			4	640	..	640	..	640	20	35	56
			5	80	..	..	..	..	..	..	.
			6	80	..	57	1	58	2	5	4
			7	80	..	43	..	43	2	4	4
				960	..	791	4	795	26	48	70
		1	Staff	10	..	11	..	11	4	..	1
	Total ..	..	..	970	..	802	4	806	30	48	71

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Serjeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
York, East Riding—*cont*	Rifle	..	1	600	..	525	13	538	19	29	506
			3	100	..	46	4	50	2	3	48
			5	100	..	85	7	92	3	4	82
			6	100	..	69	7	76	2	5	65
			8	100	..	50	14	64	2	1	50
			9	100	..	49	9	58	2	3	50
			10	100	..	..	..	..	..	..	..
			11	100	..	56	7	63	1	1	45
			..	1,300	..	880	61	941	31	46	846
		1	Staff	7	..	11	1	12	2	..	11
	Total ..	..	..	1,307	..	891	62	953	33	46	857

COUNTY SUMMARY.

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Serjeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
	Artillery ..	..	..	960	..	791	4	795	26	48	707
	Rifle	..	..	1,300	..	880	61	941	31	46	846
				2,260	..	1,671	65	1,736	57	94	1,553
			Staff	17	..	22	1	23	6	..	21
	Total ..	..	..	2,277	..	1,693	66	1,759	63	94	1,574

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency. Officers.	Who have obtained Certificates of Proficiency. Serjeants.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
York, North Riding	Artillery ..	..	1	640	..	354	42	396	15	29	362
			2	160	..	84	27	111	5	10	77
			3	160	..	78	13	91	3	6	82
	Total ..	..	..	960	..	516	82	598	23	45	521
	Rifle	..	1	100	..	64	7	71	3	2	64
			3	200	..	112	10	122	3	1	112
			4	100	..	66	4	70	2	5	67
			6	200	..	115	17	132	2	7	132
			8	100	..	64	2	66	1	4	46
			9	100	..	50	7	57	..	1	42
			10	100	..	..	34	34	..	..	..
			14	100	..	69	..	69	2	2	52
			15	300	..	175	4	179	3	6	107
			16	100	..	43	5	48	2	..	42
			18	100	..	58	9	67	2	..	41
			19	100	30	83	7	90	2	4	59
			20	100	..	72	7	79	2	3	42
				1,700	30	971	113	1,084	24	35	806
		1	Staff	12	..	12	..	12	3	..	12
		2	"	7	..	8	..	8	1	..	8
	Total ..	..	..	1,719	30	991	113	1,104	28	35	826

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
	COUNTY SUMMARY.										
York, North Riding—*cont.*	Artillery	..	..	960	..	516	82	598	23	45	521
	Rifle	..	..	1,700	30	971	113	1,084	24	35	806
				2,660	30	1,487	195	1,682	47	80	1,327
			Staff	19	..	20	..	20	4	..	20
	Total ..	..	..	2,679	30	1,507	195	1,702	51	80	1,347
York, West Riding	Artillery ..	..	1	640	..	412	61	473	7	31	324
			2	480	..	276	7	283	4	25	244
			3	160	..	103	16	119	4	9	102
			4	640	..	435	56	491	10	37	452
			7	160	..	..	80	80	..	..	..
			8	160	..	131	8	139	5	10	134
				2,240	..	1,357	228	1,585	30	112	1,256
		1	Staff	10	..	4	2	6	2	..	3
	Total ..	..	..	2,250	..	1,361	230	1,591	32	112	1,259
	Engineer ..	..	1	600	..	428	146	574	7	21	403
			2	1,000	..	715	105	820	20	22	609
	Total ..	..	..	1,600	..	1,143	251	1,394	27	43	1,012
	Rifle	..	1	500	60	341	27	368	12	21	297
			2	700	..	542	12	554	9	33	504
			3	800	..	553	7	560	15	31	513
			4	600	..	468	14	482	11	25	402
			5	400	..	258	28	286	8	17	202
			6	400	..	400	..	400	8	21	377
			7	1,000	..	949	..	949	17	50	739
			12	100	..	76	7	83	1	4	58
			15	100	..	79	5	84	1	5	74
			16	100	..	88	3	91	1	5	82
			17	100	..	65	2	67	2	4	62
			18	100	..	71	4	75	1	4	72
			19	100	..	90	10	100	1	5	80
			20	100	..	97	3	100	1	5	81
			21	100	..	75	4	79	1	5	49
			23	100	..	57	4	61	1	3	45
			25	100	..	45	7	52	1	5	41
	Carried forward ..			5,400	60	4,254	137	4,391	91	243	3,678

County.	Arm.	No. of Administrative Regiment.	County No. of Corps.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
									Officers.	Serjeants.	
	Brought forward		..	5,400	60	4,254	137	4,391	91	243	3,678
York, West Riding—*cont.*	Rifle	..	27	200	..	163	16	179	3	9	140
			28	100	..	59	4	63	3	4	54
			29	300	..	200	23	223	7	11	150
			31	100	..	53	7	60	1	3	52
			32	100	..	70	3	73	2	5	67
			34	700	..	392	4	396	5	17	365
			35	300	..	202	24	226	1	12	187
			36	100	30	105	7	112	1	6	92
			37	100	30	98	2	100	2	5	92
			38	100	..	71	8	79	3	5	59
			40	100	..	63	3	66	2	4	41
			41	159	..	98	..	98	2	6	97
			42	100	..	60	4	64	1	4	42
			43	200	..	94	26	120	4	7	59
			44	100	..	..	36	36	..	..	..
			45	100	..	69	2	71	..	..	..
				8,259	120	6,051	306	6,357	128	341	5,175
		1	Staff	10	..	10	..	10	2	..	10
		2	,,	7	..	9	..	9	1	..	9
		3	,,	10	..	11	1	12	2	..	10
		4	,,	7	..	8	..	8	1	..	8
		5	,,	10	..	8	..	8	1	..	8
	Total ..	..	..	8,303	120	6,097	307	6,404	135	341	5,220
	COUNTY SUMMARY.										
	Artillery ..	..	..	2,240	..	1,357	228	1,585	30	112	1,256
	Engineer ..	..	..	1,600	..	1,143	251	1,394	27	43	1,012
	Rifle	..	..	8,259	120	6,051	306	6,357	128	341	5,175
				12,099	120	8,551	785	9,336	185	496	7,443
			Staff	54	..	50	3	53	9	..	48
	Total ..	..	..	12,153	120	8,601	788	9,389	194	496	7,491
Engineer and Railway Volr. Staff Corps.	.. ..	..	..	110	..	31	..	31	..	..	..

COUNTY SUMMARY BY ARMS.

Arm.	County.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
							Officers.	Serjeants.	
Light Horse	Fife	240	..	123	30	153	5	..	124
	Hertford	120	..	84	2	86	5	9	71
	Huntingdon ..	240	..	121	63	184	10	3	123
	Lincolnshire ..	60	9	38	7	45	2	2	40
		660	9	366	102	468	22	14	358
	Staff of Administrative Regiments not included in Returns of any Corps	..	..	..	..	..	..	..	..
	Total.. ..	660	9	366	102	468	22	14	358
Artillery ..	Aberdeenshire ..	560	..	479	31	510	13	34	386
	Anglesey	80	50	58	3	61	2	5	43
	Argyll	849	..	531	102	633	20	38	505
	Ayrshire	578	10	457	19	476	12	33	383
	Banffshire	400	.	202	23	225	3	11	173
	Berwick-on-Tweed.	160	..	107	9	116	4	7	84
	Berwickshire ..	160	..	102	..	102	3	..	81
	Bute .. .	240	..	99	42	141	5	7	112
	Caithness-shire ..	560	..	353	36	389	9	15	278
	Carnarvon.. ..	80	..	48	4	52	1	4	35
	Cheshire	400	..	338	28	366	8	25	227
	Cinque Ports ..	1,249	30	766	139	905	18	70	700
	Cornwall	849	50	704	7	711	19	39	598
	Cromarty	80	..	53	..	53	2	..	45
	Cumberland ..	400	..	256	106	362	7	19	195
	Devonshire ..	1,440	20	1,113	103	1,216	32	70	930
	Dorsetshire ..	449	..	234	4	238	5	20	174
	Dumbarton ..	240	..	161	3	164	5	9	139
	Durham	1,680	50	1,324	36	1,360	36	86	1,147
	Edinburgh ..	720	..	517	35	552	13	33	426
	Elgin	160	..	132	3	135	1	7	93
	Essex	849	..	534	53	587	13	39	467
	Fife	978	60	682	51	733	17	34	595
	Forfar	960	..	682	127	809	20	51	548
	Glamorgan ..	1,200	100	1,189	37	1,226	19	65	800
	Gloucester.. ..	640	..	580	23	603	15	23	458
	Haddington ..	80	..	57	6	63	1	4	48
	Hants	880	50	698	21	719	19	50	497
	Inverness	480	..	321	9	330	12	27	247
	Isle of Man ..	160	..	..	58	58	..	..	..
	Carried forward	17,561	420	12,777	1,118	13,895	334	825	10,414

Arm.	County.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
							Officers.	Serjeants.	
	Brought forward	17,561	420	12,777	1,118	13,895	334	825	10,414
Artillery—*cont.*	Kent	1,760	80	1,238	161	1,399	35	103	1,113
	Kincardine ..	320	..	123	71	194	4	13	109
	Kirkcudbright ..	80	..	70	9	79	1	4	58
	Lanarkshire ..	1,360	..	1,169	19	1,188	37	69	1,008
	Lancashire ..	6,720	50	5,784	162	5,946	98	359	4,879
	Lincoln	529	..	326	18	344	11	24	298
	London	240	..	100	71	171	4	8	119
	Middlesex	1,760	..	1,521	127	1,648	46	86	1,293
	Midlothian ..	640	50	485	76	561	22	29	450
	Monmouth ..	560	..	535	16	551	8	31	385
	Nairn	160	..	110	11	121	5	10	99
	Newcastle	640	..	545	4	549	23	36	445
	Norfolk	240	..	223	1	224	6	14	212
	Northumberland ..	1,360	..	938	70	1,008	31	59	796
	Orkney	689	..	432	76	508	10	18	369
	Pembroke	160	..	80	12	92	1	4	88
	Renfrew	320	..	199	12	211	6	10	153
	Ross-shire	160	30	151	13	164	5	6	121
	Shropshire ..	320	..	213	24	237	3	20	198
	Somersetshire ..	80	..	61	2	63	..	5	59
	Staffordshire ..	240	..	240	4	244	..	15	235
	Stirlingshire ..	160	50	148	4	152	5	9	115
	Suffolk	209	..	167	12	179	3	13	162
	Surrey	640	..	318	142	460	9	13	343
	Sussex	989	..	714	42	756	14	43	651
	Sutherland ..	160	..	100	2	102	2	..	70
	Wigtown	240	10	163	15	178	5	12	147
	Worcester	320	..	229	22	251	6	17	208
	York, East Riding..	960	..	791	4	795	26	48	707
	,, North ,, ..	960	..	516	82	598	23	45	521
	,, West ,, ..	2,240	..	1,357	228	1,585	30	112	1,256
		42,777	690	31,823	2,630	34,453	813	2,060	27,081
	Staff of Administrative Regiments not included in Returns of any Corps.	316	..	164	4	168	30	..	139
	Total.. ..	43,093	690	31,987	2,634	34621	843	2,060	27,220
Engineer ..	Cheshire	400	..	279	6	285	5	23	225
	Devon	200	..	136	43	179	3	10	97
	Durham	800	..	740	27	767	16	38	547
	Flint	100	..	85	3	88	2	5	74
	Gloucester.. ..	700	..	678	22	700	11	41	620
	Hampshire ..	100	30	130	..	130	1	7	131
	Lanark	600	..	416	4	420	10	20	386
	Lancashire.. ..	1,400	..	992	95	1,087	17	61	849
	London	600	..	283	156	439	6	28	270
	Carried forward	4,900	30	3,739	356	4,095	71	233	3,199

Arm.	County.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year
							Officers.	Serjeants.	
	Brought forward	4,900	30	3,739	356	4,095	71	233	3,19
Engineer—*cont.*	Middlesex	800	. .	429	48	477	16	30	40
	Newcastle	400	. .	309	46	355	5	20	26
	Northampton . .	100	. .	68	4	72	3	4	6
	Somerset	200	60	208	24	232	4	12	18
	Tower Hamlets . .	600	. .	368	6	374	11	26	31
	York, West Riding	1,600	. .	1,143	251	1,394	27	43	1,01
	Engineer and Railway Staff Volr. Corps	110	. .	31	. .	31	. .	. .	. .
		8,710	90	6,295	735	7,030	137	368	5,43
	Staff of Administrative Regiments not included in Returns of any Corps	22	. .	8	. .	8	2	. .	
	Total . .	8,732	90	6,303	735	7,038	139	368	5,44
Mounted Rifle	Devon	60	. .	32	17	49	1	. .	38
	Dumfries	60	. .	37	8	45	2	. .	35
	Hampshire . .	60	. .	23	11	34	3	1	23
	Roxburgh	60	. .	47	2	49	4	4	44
		240	. .	139	38	177	10	5	140
	Staff of Administrative Regiments not included in Returns of any Corps.	. .	. .	. .	. .	. .	. .	. .	. .
	Total . .	240	. .	139	38	177	10	5	140
Rifle . .	Aberdeen	3,900	. .	2,629	121	2,750	99	150	2,21
	Argyll	800	. .	606	17	623	20	35	47
	Ayrshire	1,600	. .	1,112	152	1,264	34	75	1,01
	Banff	659	. .	510	26	536	12	18	37
	Bedford	700	30	492	35	527	18	31	46
	Berkshire	1,300	. .	997	26	1,023	32	60	93
	Berwick-on-Tweed	100	. .	62	5	67	3	3	5
	Berwickshire . .	700	. .	538	17	555	15	40	51
	Brecknock	718	. .	420	16	436	5	19	32
	Buckingham . .	500	. .	422	4	426	9	29	39
	Bute	100	. .	65	. .	65	3	4	5
	Caithness	459	. .	377	. .	377	6	17	28
	Cambridge . .	1,400	. .	662	227	889	29	43	65
	Cardigan	100	. .	73	. .	73	3	4	51
	Carmarthen . .	500	. .	320	87	407	6	18	32
	Carnarvon	400	60	170	12	182	2	6	15
	Cheshire	4,518	90	3,432	88	3,520	88	188	3,03
	Cinque Ports . .	359	. .	151	45	196	4	14	15
	Clackmannan . .	500	. .	451	11	462	16	20	40
	Cornwall	2,000	315	1,806	37	1,843	47	91	1,41
	Carried forward	21,313	495	15,295	926	16,221	451	865	13,29

Arm.	County.	Maximum Establishment.	Supernumeraries authorised.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
							Officers.	Serjeants.	
	Brought forward	21,313	495	15,295	926	16,221	451	865	13,299
ifle—*cont.*	Cumberland ..	1,300	..	924	35	959	23	57	805
	Denbighshire ..	777	..	657	43	700	14	36	574
	Derby	2,159	..	1,644	93	1,737	42	74	1,440
	Devonshire ..	4,077	..	2,474	138	2,612	61	167	2,117
	Dorsetshire ..	1,218	..	762	45	807	18	53	588
	Dumbarton ..	1,318	120	1,061	41	1,102	34	60	941
	Dumfries	1,000	..	629	51	680	19	42	558
	Durham	3,459	60	2,104	273	2,377	44	139	1,869
	Edinburgh ..	2,900	60	2,336	85	2,421	81	134	1,873
	Elgin	1,059	..	808	36	844	21	36	699
	Essex	3,300	..	2,230	132	2,362	59	140	1,840
	Fife	1,200	30	864	32	896	27	47	644
	Flintshire	600	..	409	43	452	6	26	375
	Forfar	2,800	30	1,649	178	1,827	54	116	1,438
	Glamorgan ..	3,218	..	2,488	99	2,587	49	122	2,103
	Gloucester ..	2,300	90	1,274	123	1,397	33	63	1,201
	Haddington ..	518	30	334	27	361	9	13	283
	Hampshire ..	3,000	..	1,736	257	1,993	43	124	1,492
	Haverfordwest ..	300	..	225	35	260	4	13	228
	Hereford	759	..	560	33	593	10	34	446
	Herts	1,000	..	633	66	699	21	41	568
	Huntingdon ..	200	..	113	11	124	3	9	80
	Inverness	1,000	..	914	34	948	18	36	772
	Isle of Man ..	100	..	67	..	67	2	5	49
	Isle of Wight ..	600	60	501	28	529	9	30	415
	Kent	4,659	60	2,896	247	3,143	87	218	2,606
	Kincardine ..	500	..	372	20	392	9	22	276
	Kinross	100	..	72	1	73	3	1	68
	Kirkcudbright ..	600	..	484	19	503	13	31	409
	Lanark	10,400	..	7,434	169	7,603	212	495	6,219
	Lancashire ..	18,559	300	15,376	466	15,842	352	795	13,123
	Leicester	1,000	..	637	88	725	13	22	590
	Lincoln	1,900	..	1,271	99	1,370	45	74	1,178
	Linlithgow ..	559	150	462	9	471	11	30	339
	London	3,400	..	2,232	194	2,426	70	163	1,793
	Middlesex	20,059	60	12,114	1,476	13,590	410	817	11,218
	Midlothian ..	1,800	..	1,443	155	1,598	44	92	1,167
	Monmouth ..	1,959	..	1,470	77	1,547	30	83	1,169
	Montgomery ..	159	..	35	6	41	..	2	35
	Newcastle	800	..	522	5	527	14	31	474
	Norfolk	2,759	..	1,768	130	1,898	70	131	1,567
	Northampton ..	1,200	..	808	45	853	17	49	739
	Northumberland ..	1,459	..	763	262	1,025	21	68	774
	Nottingham ..	1,800	100	1,502	57	1,559	27	79	1,192
	Orkney	100	..	78	5	83	3	5	46
	Oxford	1,200	..	472	118	590	20	29	406
	Peebles	300	..	195	3	198	2	12	177
	Pembroke	200	..	149	6	155	3	6	148
	Perthshire	1,659	..	1,119	141	1,260	32	73	1,071
	Radnor	200	..	104	26	130	..	5	83
	Renfrew	2,400	200	2,080	54	2,134	55	108	1,591
	Ross	900	..	704	21	725	22	48	567
	Carried forward	142,106	1,845	99,253	6,763	106,016	2,740	5,971	85,722

Arm.	County.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.		No. of Volunteers present at Annual In-
							Officers.	Serjeants.	
	Brought forward	142,106	1,845	99,253	6,763	106,016	2,740	5,971	85,
Rifle—*cont.*	Roxburgh	500	49	389	10	399	12	23	
	Selkirk	300	..	266	3	269	7	17	
	Shropshire ..	1,600	60	1,108	67	1,175	25	73	
	Somerset	2,759	..	1,869	206	2,075	46	98	1,
	Stafford	4,595	130	3,562	115	3,677	85	209	2,
	Stirling	1,200	60	981	29	1,010	28	50	
	Suffolk	2,100	60	1,327	147	1,474	43	95	1,
	Surrey	5,618	120	3,551	413	3,964	86	225	3,
	Sussex	2,200	..	1,391	77	1,468	48	84	1,
	Sutherland ..	500	..	422	19	441	5	19	
	Tower Hamlets ..	2,300	..	1,374	203	1,577	26	104	1,
	Warwick	2,300	10	1,812	37	1,849	45	111	1,
	Westmoreland ..	700	..	496	19	515	13	32	
	Wigtown	200	..	142	12	154	4	9	
	Wiltshire	2,159	..	1,306	141	1,447	31	84	1,
	Worcester	2,018	60	1,477	60	1,537	41	90	1,
	York, East Riding	1,300	..	880	61	941	31	46	
	„ North Riding	1,700	30	971	113	1,084	24	35	
	„ West Riding	8,259	120	6,051	306	6,357	128	341	5,
		184,414	2,544	128,628	8,801	137,429	3,468	7,716	111,
	Staff of Administrative Regiments not included in Returns of any Corps.	1,122	..	1,286	61	1,347	224	..	1,
	Total..	185,536	2,544	129,914	8,862	138,776	3,692	7,716	112,

GRAND SUMMARY.

Arm.	Maximum Establishment.	Supernumeraries authorized.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.			No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1875.
						Officers.	Serjeants.	Total.	
Light Horse	660	9	366	102	468	22	14	36	358
Artillery	42,777	690	31,823	2,630	34,453	813	2,060	2,873	27,081
Engineer	8,710	90	6,295	735	7,030	137	368	505	5,433
Mounted Rifle	240	..	139	38	177	10	5	15	140
Rifle	184,414	2,544	128,628	8,801	137,429	3,468	7,716	11,184	111,367
	236,801	3,333	167,251	12,306	179,557	4,450	10,163	14,613	144,379
Staff of Administrative Regiments not included in the Returns of any Corps	1,460	..	1,458	65	1,523	256	..	256	1,374
Grand Total ..	238,261	3,333	168,709	12,371	181,080	4,706	10,163	14,869	145,753

STRENGTH OF THE VOLUNTEER FORCE.

From 1st DECEMBER 1863,

TO

1st NOVEMBER 1875,

INCLUSIVE.

STRENGTH OF THE VOLUNTEER FORCE.

1st December 1863.

Arm.	Maximum Establishment.	Efficient.	Non-Efficient.	Enrolled.	Extra Efficient.	Percentage of Efficients to Enrolled.	Percentage of Extra Efficients to enrolled in Light Horse, Engineer, Mounted Rifle and Rifle Arms.
Light Horse	1,156	520	208	728	382	1·42	52·47
Artillery	34,558	18,833	7,219	26,052	..	72·29	..
Engineer	5,095	2,326	1,431	3,757	1,468	61·91	39·07
Mounted Rifle	826	425	123	548	219	77·55	39·96
Rifle	184,521	91,407	40,443	131,850	45,802	69·32	34·73
Total	226,156	113,511	49,424	162,935	47,871	69 66	34·96

1st December 1864.

Arm.	Maximum Establishment.	Efficient.	Non-Efficient.	Enrolled.	Extra Efficient.	Percentage of Efficients to Enrolled.	Percentage of Extra Efficients to Enrolled in Light Horse, Engineer, Mounted Rifle and Rifle Arms.
Light Horse	1,040	535	262	797	376	67·12	47·17
Artillery	35,965	22,090	7,902	29,992	..	73·65	..
Engineer	5,136	3,237	1,106	4,343	2,748	74·53	63·27
Mounted Rifle	705	328	218	546	176	60·07	32·23
Rifle	182,644	97,517	37,349	134,866	59,326	72·30	43·98
Total	225,490	123,707	46,837	170.544	62,626	72·53	44·55

STRENGTH OF THE VOLUNTEER FORCE.

1st December 1865.

Arm.	Maximum Establishment.	Efficient.	Non-Efficient.	Enrolled.	Extra Efficient.	Percentage of Efficients to Enrolled.	Percentage of Extra Efficients to Enrolled in Light Horse, Engineer Mounted Rifle and Rifle Arms.
Light Horse	1,055	609	221	830	492	73·37	59·27
Artillery	37,331	25,481	6,529	32,010	..	79·6	..
Engineer	5,859	3,745	1,078	4,823	3,360	77·64	69·66
Mounted Rifle	575	333	105	438	123	76·02	28·08
Rifle	181,841	103,680	36,703	140,383	62,005	73·85	44·16
Total	226,661	133,848	44,636	178,484	65,980	74·99	45·04

1st December 1866.

Arm.	Maximum Establishment.	Efficient.	Non-Efficient.	Enrolled.	Extra Efficient.	Percentage of Efficients to Enrolled.	Percentage of Extra Efficients to Enrolled in Light Horse, Engineer, Mounted Rifle and Rifle Arms.
Light Horse	995	539	304	843	472	63·93	55·99
Artillery	38,922	27,422	6,332	33,754	..	81·24	..
Engineer	6,159	4,354	879	5,233	4,014	83·22	76·7
Mounted Rifle	575	281	153	434	118	64·74	27·18
Rifle	182,751	110,253	31,048	141,301	73,681	78·02	52·14
Total	229,402	142,849	38,716	181,565	78,285	78·67	52·96

STRENGTH OF THE VOLUNTEER FORCE.

1st December 1867.

Arm.	Maximum Establishment.	Efficient.	Non-Efficient.	Enrolled.	Extra Efficient.	Percentage of Efficients to Enrolled.	Percentage of Extra Efficients to Enrolled in Light Horse, Engineer, Mounted Rifle and Rifle Arms.
Light Horse	935	507	192	699	458	72·53	65·52
Artillery	40,666	30,611	4,897	35,508	..	86·2	..
Engineer..	6,580	4,715	796	5,511	4,301	85·55	78·01
Mounted Rifle.. ..	575	272	122	394	114	69·03	28·93
Rifle..	187,056	119,111	26,641	145,752	85,715	81·72	58·8
Total	235,812	155,216	32,648	187,864	90,588	82·62	59·45

1st December 1868.

Arm.	Maximum Establishment.	Efficient.	Non-Efficient.	Enrolled.	Extra Efficient.	Percentage of Efficients to Enrolled.	Percentage of Extra Efficients to Enrolled in Light Horse, Engineer, Mounted Rifle and Rifle Arms.
Light Horse	875	601	151	752	506	79·92	67·28
Artillery	42,733	33,654	4,230	37,884	..	88·83	..
Engineer..	7,780	5,652	941	6,593	5,212	85·72	79·05
Mounted Rifle.. ..	635	275	160	435	109	63·21	25·05
Rifle..	193,725	130,116	23,414	153,530	96,397	84·74	62·78
Total	245,748	170,298	28,896	199,194	102,224	85·49	63·37

STRENGTH OF THE VOLUNTEER FORCE.

1st December 1869.

Arm.	Maximum Establishment.	Efficient.	Non-Efficient.	Enrolled.	Extra Efficient.	Percentage of Efficients to Enrolled.	Percentage of Extra Efficients to Enrolled in Light Horse, Engineer, Mounted Rifle, and Rifle Arms.
Light Horse	870	511	156	667	423	76·61	63·41
Artillery	42,413	33,645	3,814	37,459	..	89·81	..
Engineer..	8,100	5,947	842	6,789	5,392	87·59	79·42
Mounted Rifle.. ..	600	271	116	387	117	70·02	30·23
Rifle..	192,948	128,103	21,882	149,985	99,628	85·41	66·42
Total	244,931	168,477	26,810	195,287	105,560	86·27	66·88

STRENGTH OF THE VOLUNTEER FORCE.

1st December 1870.

Arm.	Maximum Establishment.	Efficients.	Non-Efficients.	Total Enrolled.	Efficients who have obtained ExtraCertificate.	Officers and Serjeants who have obtained Certificates of Proficiency.	No. of Volunteers present at Annual Inspection during year ended 30 Nov. 1870.	Percentage of Efficients to Enrolled.	Percentage of Extra Efficients to Enrolled in Light Horse, Mounted Rifle and Rifle Arms.	Percentage of men present at Inspection to Enrolled.
Light Horse	1,055	659	182	841	404	25	582	78·35	48·03	69·2
Artillery	42,457	33,867	3,567	37,434	..	1,830	27,029	90·47	..	72·2
Engineer	8,100	6,278	819	7,097	5,763	198	5,038	88·45	81·2	70·98
Mounted Rifle	300	147	49	196	120	4	149	75·	61·22	76·02
Rifle	191,517	128,231	18,605	196,836	106,608	6,328	105,653	65·14	54·15	53·67
	243,429	169,182	23,222	192,404	112,895	8,385	138,451	87·93	72·84	71·95
Staff of Administrative Regiments not included in the Returns of any Corps ..	1,537	1,489	..	1,489	866	72	*1,450	100·	58·15	97·38
Grand Total	244,966	170,671	23,222	193,893	113,761	8,457	139,901	88·02	72·7	72·15

* Approximate.

STRENGTH OF THE VOLUNTEER FORCE.

1st December 1871.

Arm.	Maximum Establishment.	Efficients.	Non-Efficients.	Total Enrolled.	Efficients who have obtained Extra Certificate.	Officers and Serjeants who have obtained Certificates of Proficiency.	No. of Volunteers present at Annual Inspection during year ended 30 Nov. 1871.	Percentage of Efficients to Enrolled.	Percentage of Extra Efficients to Enrolled in Light Horse, Engineer, Mounted Rifle, and Rifle Arms.	Percentage of Men present at Inspection to Enrolled.
Light Horse	1,115	600	236	836	311	48	537	71·77	37·2	64·23
Artillery	42,777	33,332	3,565	36,897	..	2,292	25,935	90·33	..	70·29
Engineer	7,900	5,950	682	6,632	5,585	301	4,714	89·71	84·21	71·07
Mounted Rifle	240	122	37	159	107	7	116	76·72	67·29	72·95
Rifle	192,663	131,137	15,469	146,606	110,764	7,875	105,592	89·44	75·55	72·02
	244,695	171,141	19,989	191,130	116,767	10,523	136,894	89·54	75·7	71·62
Staff of Administrative Regiments not included in the Returns of any Corps ..	1,537	1,478	..	1,478	954	119	*1,440	100·	64·54	97·42
Grand Total	246,232	172,619	19,989	192,608	117,721	10,642	138,334	89·62	75·6	71·82

* Approximate.

STRENGTH OF THE VOLUNTEER FORCE.

1st November 1872.

Arm.	Maximum Establishment.	Efficients.	Non-Efficients.	Total Enrolled.	Efficients who have obtained Extra Certificate.	Officers and Serjeants who have obtained Certificates of Proficiency.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1872.	Percentage of Efficients to Enrolled.	Percentage of Extra Efficients to Enrolled in Light Horse, Engineer, Mounted Rifle, and Rifle Arms.	Percentage of Men present at Inspection to Enrolled.
Light Horse	1,115	545	158	703	286	53	498	77·52	40·68	70·83
Artillery	43,146	30,849	3,065	33,914	..	2,387	25,898	90·96	..	76·36
Engineer	8,010	5,751	423	6,174	5,436	355	4,922	93·14	88·04	79·72
Mounted Rifle	300	101	91	192	67	8	111	52·6	34·89	57·81
Rifle	190,727	122,080	13,805	135,885	107,332	8,647	105,123	89·84	78·98	77·36
	2432,98	159,326	17,542	176,868	113,121	11,450	136,552	90·08	79·13	77·26
Staff of Administrative Regiments not included in the Returns of any Corps ..	1,520	1,411	..	1,411	959	132	*1,370	100·	67·96	97·09
Grand Total	244,818	160,737	17,542	178,279	114,080	11,582	137,922	90·16	79·02	77·36

* Approximate.

STRENGTH OF THE VOLUNTEER FORCE.

1st November 1873.

Arm.	Maximum Establishment.	Efficients.	Non-Efficients.	Total Enrolled.	Officers and Serjeants who have obtained Certificates of Proficiency.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1873.	Percentage of Efficients to Enrolled.	Percentage of Men present at Inspection to Enrolled.
Light Horse	995	488	141	629	51	466	77·58	74·08
Artillery	42,666	29,768	3,162	32,930	2,612	24,987	90·39	75·87
Engineer	8,210	5,523	544	6,067	422	4,742	91·03	78·16
Mounted Rifle	275	122	53	175	11	118	69·71	67·42
Rifle	186,427	115,927	14,738	130,665	9,649	103,414	88·72	79·14
	238,573	151,828	18,638	170,466	12,745	133,727	89·06	78·44
Staff of Administrative Regiments not included in the Returns of any Corps	1,494	1,388	83	1,471	166	1,388*	94·35	94·35
Grand Total	240,067	153,216†	18,721	171,937	12,911	135,115	89·11	78·58

* Approximate.

† The Efficients of 1873 correspond, as to qualifications and amount of Capitation Allowance earned (30*s.*), with the Extra Efficients of previous years.

STRENGTH OF THE VOLUNTEER FORCE.

1st November 1874.

Arm.	Maximum Establishment.	Supernumeraries.	Efficients.	Non-Efficients.	Total Enrolled.	Officers and Serjeants who have obtained Certificates of Proficiency.	No. of Volunteers present at Annual Inspection during year ended 31 Oct. 1874.	Percentage of Efficients to Enrolled.	Percentage of Men present at Inspection to Enrolled.
Light Horse	995	9	400	156	556	36	370	71·94	66·54
Artillery	42,026	649	30,827	2,723	33,550	2,770	26,184	91·88	78·04
Engineer	8,410	210	5,842	459	6,301	484	4,943	92·71	78·44
Mounted Rifle	300	..	132	43	175	16	145	75·42	82·85
Rifle	183,473	2,384	122,492	10,831	133,323	10,643	107,309	91·87	80·48
	235,204	3,252	159,693	14,212	173,905	13,949	138,951	91·82	79 · 9
Staff of Administrative Regiments not included in the Returns of any Corps	1,481	..	1,407	75	1,482	203	1,407*	94·93	94·93
Grand Total	236,685	3,252	161,100	14,287	175,387	14,152	140.358	91·85	80·02

* Approximate.

STRENGTH OF THE VOLUNTEER FORCE.

1st November 1875.

Arm.	Maximum Establishment.	Supernumeraries.	Efficients.	Non-Efficients.	Total Enrolled.	Who have obtained Certificates of Proficiency.			No. of Volunteers present at Annual Inspection during year ended 31 Oct. 18,5.	Percentage of Efficients to Enrolled.	Percentage of Men present at Inspection to Enrolled.
						Officers.	Serjeants.	Total.			
Light Horse	660	9	366	102	468	22	14	36	358	78 ·2	76 ·49
Artillery	42,777	690	31,823	2,630	34,453	813	2,060	2,873	27,081	92 ·36	78 ·6
Engineers	8,710	90	6,295	735	7,030	137	368	505	5,433	89 ·54	77 ·28
Mounted Rifle	240	..	139	38	177	10	5	15	140	78 ·53	79 ·09
Rifle	184,414	2,544	128,628	8,801	137,429	3,468	7,716	11,184	111,367	93 ·59	81 ·03
	236,801	3,333	167,251	12,306	179,557	4,450	10,163	14,613	144,379	93 ·14	80 ·4
Staff of Administrative Regiments not included in the returns of any Corps	1,460	..	1,458	65	1,523	256	..	256	1,374	95. 73	90 ·21
Grand Total	238,261	3,333	168,709	12,371	181,080	4,706	10,163	14,869	145,753	93 ·16	80 ·49

RECAPITULATION OF TOTALS OF ALL ARMS.

Year.		Maximum Establishment.	Supernumeraries.	Efficient.	Non-Efficient.	Enrolled.	Extra Efficient.	Who have obtained Certificates of Proficiency.			Present at Inspection.	Percentage of Efficients to Enrolled.	Percentage of Extra Efficients to enrolled in Light Horse, Engineer, Mounted Rifle, and Rifle Arms.	Percentage of Men present at Inspection to Enrolled.
								Officers.	Serjeants.	Total.				
1863	..	226,156	..	113,511	49,424	162,935	47,871	..	..	..	..	69·66	34·96	..
1864	..	225,490	..	123,707	46,837	170,544	62,626	..	..	..	..	72·53	44·55	..
1865	..	226,661	..	133,848	44,636	178,484	65,980	..	..	..	..	74·99	45·04	..
1866	..	229,402	..	142,849	38,716	181,565	78,285	..	..	..	..	78·67	52·96	..
1867	..	235,812	..	155,216	32,648	187,864	90,588	..	..	..	..	82·62	59·45	..
1868	..	245,748	..	170,298	28,896	199,194	102,224	..	..	..	..	85·49	63·37	..
1869	..	244,931	..	168,477	26,810	195,287	105,560	..	..	..	..	86·27	66·88	..
1870	..	244,966	..	170,671	23,222	193,893	113,761	..	..	8,457	139,901	88·02	72·7	72·15
1871	..	246,232	..	172,619	19,989	192,608	117,721	..	..	10,064	138,334	89·62	75·6	71·82
1872	..	244,818	..	160,737	17,542	178,279	114,080	..	..	11,582	137,922	90·16	79·02	77·36
1873	..	240,067	..	153,216	18,721	171,937	..	..	..	12,911	135,115	89·11	..	78·58
1874	..	236,685	3,252	161,100	14,287	175,387	..	..	..	14,152	139,858	91·85	..	79·74
1875	..	238,261	3,333	168,709	12,371	181,080	..	4,706	10,163	14,869	145,753	93·16	..	80·49